

(Un)Conscious Judging

Elizabeth Thornburg*

Abstract

Fact inferences made by the trial judge are the lynchpin of civil litigation. If inferences were a matter of universally held logical deductions, this would not be troubling. Inferences, however, are deeply contestable conclusions that vary from judge to judge. Non-conscious psychological phenomena can lead to flawed reasoning, implicit bias, and culturally influenced perceptions. Inferences differ significantly, and they matter. Given the homogeneous makeup of the judiciary, this is a significant concern.

This Article will demonstrate the ubiquity, importance, and variability of inferences by examining actual cases in which trial and appellate (or majority and dissenting) judges draw quite different inferences from the same record. It will then review the psychological literature to show ways in which judges are affected by unconscious forces. It concludes by suggesting reforms to judicial education, use of decision mechanisms that promote conscious deliberation, and civil procedure rule changes designed to increase information and decrease the impact of individual judges' inferences.

* Richard R. Lee Endowed Professor of Law, Altshuler Distinguished Teaching Professor, SMU Dedman School of Law. Many thanks for helpful comments to Professors Kevin Clermont, Deborah Hensler, Elizabeth Schneider, Brooke Coleman, Suja Thomas, Scott Dodson, Joe Glannon, Grant Hayden, Jenia Turner, the participants in the SMU Dedman faculty workshop, and my fellow panelists at the Feminist Theory and Civil Procedure Roundtable at the 2018 Law & Society meeting. Thanks also for both consultation and comments to experts at the Federal Judicial Center, including former Director Jeremy Fogel, Senior Research Associates Jason Cantone and Beth Wiggins, and Senior Judicial Education Attorney Denise Neary. Finally, thanks to my wonderful liaison librarian, Donna Wolff, for research support. This paper was supported by the Lidji Endowment Fund.

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“[T]he test for determining whether an inference (from circumstantial evidence) is a rational one is stated in terms of mathematical precision but is one which allows the very greatest latitude in actual application. . . . [T]he authoritative language of nice and scientific precision in which such conclusions are cast is after all only the language of delusive exactness.” – Fleming James, Jr.¹

“We may try to see things as objectively as we please. None the less, we can never see them with any eyes except our own.”
– Benjamin Cardozo²

Motivated cognition is “the ubiquitous tendency of people to form perceptions, and to process factual information generally, in a manner congenial to their values and desires.”
– Dan M. Kahan³

I. Introduction

Inferences about facts are an integral and unavoidable part of civil litigation. As in life, much of what we “know” are conclusions, formed by drawing inferences from a collection of direct and circumstantial evidence. Juries, for example, are instructed that “[i]nferences are simply deductions or conclusions which reason and common sense lead the jury to draw from the evidence received in the case.”⁴ At trial, then, juries perform the intertwined

1. Fleming James, Jr., *Functions of Judge and Jury in Negligence Cases*, 58 YALE L.J. 667, 673–74 (1949).

2. BENJAMIN N. CARDOZO, *THE NATURE OF THE JUDICIAL PROCESS* 3 (Steven A. Childress ed., Quid Pro Books 2010) (1921).

3. Dan M. Kahan et al., “*They Saw a Protest*”: *Cognitive Illiberalism and the Speech-Conduct Distinction*, 64 STAN. L. REV. 851, 853 (2012).

4. KEVIN F. O’MALLEY ET AL., 1A FED. JURY PRAC. & INSTR. § 12:05 (6th ed. 2019).

functions of deciding what evidence to believe, what inferences to draw (and not draw), and how the law applies to the facts it has found.⁵

Trials, however, are not the only stage in which inferences play a role, and judges, rather than juries, consciously and unconsciously draw inferences that will shape the course of the litigation and the parties' likelihood of success. This has long been recognized in the context of the pivotal pretrial rulings that take the case away from the jury: dismissals on the pleadings and summary judgment.⁶ Less obvious are the many other ways in which judges make decisions based on facts during the pretrial period, and the ways in which they employ inferences in doing so. Although they do not technically end litigation, decisions about issues such as discovery, joinder of claims and parties, and class action status can have an enormous impact on the viability and scope of litigation. Even decisions that are labeled as exercises of discretion rather than as fact finding are often undergirded by the judge's belief about facts, and those beliefs are formed after drawing inferences.

This Article will illuminate and critique the power of judicial inferences, and will conclude by suggesting some changes in training, process, and procedure rules that could improve the inference-drawing process.⁷ While much law review literature about inferences focuses on lawmaking, this Article will focus on fact finding; while much focuses on appeals, this Article will look at the pretrial stage. Trial judges' myriad decisions are riddled with inferences, and their role in finding facts makes them the most important actors in influencing the course and outcome of lawsuits.⁸ Part II briefly defines "inference" as it is used in this

5. In doing so, they will apply the applicable standard of proof, generally "preponderance of the evidence" in civil cases. *See generally* Kevin M. Clermont, *Staying Faithful to the Standards of Proof*, CORNELL L. REV. (forthcoming 2019) (discussing the various standards of proof and their continued use in the legal system).

6. *See infra* Part IV (illustrating judicial inferences in real cases including motions on pleadings and summary judgment).

7. *See infra* Part V (discussing the ways judges use heuristics); *see also infra* Part VI (suggesting ways to improve the judicial system).

8. This Article will focus on the federal courts and federal procedure, but the same arguments would apply to state courts. Indeed, since many state court judges are faced with much larger caseloads and far fewer resources, it is possible

Article and discusses the inference-drawing process. It highlights the powerful role of each judge's own experience and world view in that process.

The next two Parts document judges drawing pretrial inferences and show why that matters. Part III uses a hypothetical case to illustrate the types of pretrial decisions in which the trial judge's choices about inferences can be decisive. Part IV takes the discussion from the theoretical into real courts and decisions. Both Parts demonstrate that judges may find different facts because they have chosen different inferences, even though dealing with the same record.

After these Parts establish the pervasiveness of inferences and of the potential impact of disagreements, Part V brings together judicial decisions and psychological research. It begins by introducing the psychology and behavioral economics⁹ scholarship that describes the ways in which the human brain processes information and reaches decisions, including the use of heuristics.¹⁰ It then demonstrates that judges, like all other humans, are influenced in their thinking by factors such as heuristics, implicit biases, and cultural cognition.¹¹ Nor does their combination of legal education, judicial experience, and judicial education overcome those effects in most cases.¹² Further,

that the need for fast decisions and tendency toward oral rather than written opinions would exacerbate the problems discussed in this Article.

9. See generally DANIEL KAHNEMAN, THINKING, FAST AND SLOW (2011); CASS R. SUNSTEIN, BEHAVIORAL LAW AND ECONOMICS (2000).

10. A "heuristic" is

a mental shortcut that allows people to solve problems and make judgments quickly and efficiently. These rule-of-thumb strategies shorten decision-making time and allow people to function without constantly stopping to think about their next course of action. Heuristics are helpful in many situations, but they can also lead to cognitive biases.

Kendra Cherry, *Heuristics and Cognitive Biases*, VERYWELL MIND <https://perma.cc/L6G3-U4M2> (last updated July 26, 2019) (last visited Aug. 30, 2019) (on file with the Washington and Lee Law Review).

11. See *infra* Part IV.B.

12. Not only is the common cliché that judges just "call balls and strikes" inaccurate, some studies show that NBA referees and MLB umpires show implicit bias effects in their officiating. See Jerry Kang et al., *Implicit Bias in the Courtroom*, 59 UCLA L. REV. 1124, 1178 (2012) (discussing the various biases of

empirical studies linking judicial decisions with the judges' own race and gender provide evidence that inferences may be especially problematic in cases where race, gender, and other characteristics are salient.¹³ Given the homogeneous makeup of the federal judiciary,¹⁴ this is a significant concern.

Part VI suggests some reforms on individual and systemic levels that might improve judicial inferences: 1) provide judicial education designed to raise judges' awareness of their own inference-making and increase their knowledge of the experiences and worldviews of others; 2) implement mechanisms that activate and facilitate deliberative mental processes; and 3) change the interpretation and application of the procedure rules to support rather than reject alternative inferences and decrease the impact of a single judge's intuitions. Part VII concludes with overall lessons on recognizing and offsetting the inevitable impact of cognitive biases on fact finding.

II. Defining "Inference" and Inference-Drawing

The kind of inferences and inference-drawing discussed in this Article are what Black's Law Dictionary refers to as an "inferential fact"—a "fact established by conclusions drawn from other evidence rather than from direct testimony or evidence; a fact derived logically from other facts."¹⁵ That derivation goes beyond the literal limits of the testimony. As Professor Dan Simon has pointed out, "[a]n inference is typically defined as any cognitive process of reasoning, in which a person goes beyond some known data to generate a new proposition. The result of an inference, then, is the addition of information to the person's mental representation of an issue."¹⁶ For example, evidence might consist

professional sports judges).

13. See Pat K. Chew & Robert E. Kelley, *Myth of the Color-Blind Judge: An Empirical Analysis of Racial Harassment Cases*, 86 WASH. U. L. REV. 1117, 1129–35 (2009) (summarizing multiple analyses concluding that judges' race significantly affects outcomes in workplace racial harassment cases).

14. See *infra* notes 402–419 and accompanying text (discussing the makeup of the federal judiciary).

15. *Inferential Fact*, BLACK'S LAW DICTIONARY (11th ed. 2019).

16. Dan Simon, *A Psychological Model of Judicial Decision Making*, 30 RUTGERS L.J. 1, 42 (1998) (citing THE BLACKWELL DICTIONARY OF COGNITIVE

of a properly authenticated videotape of a bank robbery showing the robber wearing a yellow rain hat as well as testimony from a police officer that a search of the defendant's home produced a yellow rain hat (introducing into evidence the hat, which looks like the one on the video). An inference from that evidence might be that it is the same hat, and, further, that the defendant robbed the bank.¹⁷

What is the process by which inferences are drawn or not drawn? Scholars describe it differently, but all recognize that inferences spring from the decisionmaker's beliefs about the world, their "generalizations."¹⁸ Rationalist evidence analysis looks at evidence and inferences as logical chains, considering each piece of evidence together with generalizations that are said to justify (or not justify) an inference.¹⁹

Cognitive psychologists describe the fact-finding process, including inferences, as based on the construction of stories.²⁰ Their experiments show that jurors impose a narrative organization on trial evidence.²¹ The ways in which they do so

PSYCHOLOGY 186 (Michael W. Eysenck ed., 1991) and Gilbert Harman, *Rationality*, in 3 AN INVITATION TO COGNITIVE SCIENCE: THINKING 175, 184 (Edward E. Smith & Daniel N. Osherson eds., 2d ed. 1995)).

17. See *id.* ("Inferences are vectorial in character: they constitute some form of extension of datum towards some new knowledge, stated in the form of a preposition.").

18. See TERENCE ANDERSON, DAVID SCHUM & WILLIAM TWINING, ANALYSIS OF EVIDENCE 100 (William Twining & Christopher J. McCrudden eds., 2d ed. 2005) ("Every inference is dependent upon a generalization.").

19. See David H. Kaye, *What is Bayesianism? A Guide for the Perplexed*, 28 JURIMETRICS J. 161, 170–72 (1988) (noting that even under a mathematical model of reasoning such as Bayesian theory, the results are affected both by peoples' prior beliefs and by the likelihood ratios they assign to new pieces of information). For a helpful chart showing the interaction of evidence and generalizations (and also the impact of information relevant to credibility decisions), see ANDERSON ET AL., *supra* note 18, at 61, Figure 2.5.

20. See Reid Hastie, *Introduction*, in INSIDE THE JUROR: THE PSYCHOLOGY OF JUROR DECISION MAKING 3, 24 (Reid Hastie, ed., 1993) ("[A] narrative structure is imposed on evidence as it is comprehended by a juror who is making a decision . . ."). The story model may be a less helpful explanation in contexts that do not have much of a story structure. See also Dan Simon, *Thin Empirics*, 23 INT'L J. EVID. & PROOF 82, 83–85 (2019) (discussing the shortcomings of the story model).

21. See Hastie, *supra* note 20, at 24 ("Pennington and Hastie's empirical research supports the 'psychological validity' of story structures as descriptions of

require jurors to use their knowledge of the world—their generalizations—plus their knowledge about the expected structure of stories in reacting to trial evidence.²² “Analyses of inference chains leading to story events reveal that intermediate conclusions are established by converging lines of reasoning which rely on deduction from world knowledge, analogies to experienced and hypothetical episodes, and reasoning by contradiction.”²³

The judicial system’s confidence in generalizations is based on an assumption that judges and jurors share a body of knowledge that will make inferences fairly uniform.²⁴ However, this assumption is problematic.

This . . . is commonly described as “general experience,” “background knowledge,” “common sense,” or “society’s stock of knowledge.” . . . [W]e need to ask, whose experience, sense, or knowledge? . . . The bases for such generalizations are as varied as the sources for the beliefs themselves—education, direct experience, the media, gossip, fiction, fantasy, speculation, prejudice, and so on.²⁵

Judges, who like jurors operate by using human cognition, can be expected to use the same kind of evidence-generalization links to analyze inferences, and to be similarly dependent on their own experiences in forming, using, and analyzing generalizations.²⁶

jurors’ representations of evidence . . .”).

22. See Nancy Pennington & Reid Hastie, *A Cognitive Theory of Juror Decision Making: The Story Model*, 13 CARDOZO L. REV. 519, 525 (1991) (“Because all jurors hear the same evidence and have the same general knowledge about the expected structure of stories, differences in story construction must arise from differences in world knowledge.”). Although it was developed in the context of criminal cases, the applicability of the Story Model in at least some civil cases has been demonstrated by later research. See, e.g., Jill E. Huntley & Mark Costanzo, *Sexual Harassment Stories: Testing a Story-Mediated Model of Juror Decision-Making in Civil Litigation*, 27 L. & HUM. BEHAV. 29, 45 (2003) (“[I]n sexual harassment cases, the story model of juror decision-making appears to be useful.”). For a recent examination of the story model, see generally Dominic Willmott et al., *Introduction and Validation of the Juror Decision Scale (JDS): An Empirical Investigation of the Story Model*, 57 J. CRIM. JUST. 26 (2018).

23. Pennington & Hastie, *supra* note 22, at 524.

24. ANDERSON ET AL., *supra* note 18, at 269 (“[I]t is assumed that the triers of fact, including jurors, come already equipped with a largely shared ‘stock of knowledge’ which is the main source of warrants for making inferences in arguments about questions of fact.”).

25. *Id.*

26. See Chris Guthrie et al., *Inside the Judicial Mind*, 86 CORNELL L. REV.

When judges draw inferences, or when they decide whether a reasonable jury could draw an inference, they are injecting not just logic but also their own store of generalizations into the mix.²⁷ This is doubly important because the kind of reasoning involved in the inference process often operates intuitively.²⁸ “The reasoner does not consciously identify the generalizations upon which her inferences depend.”²⁹

III. A Tale of Two Judges

In order to make the impact of fact inferences clearer, consider the ways in which two different judges might react to pretrial issues raised in the same lawsuit.

Two hypothetical judges, Judge A and Judge B, will rule on various motions. The point is not that one or the other judge is correct, but that their inferences may well vary significantly, with important consequences for the course of the litigation. For both of our hypothetical judges, the lawsuit begins with a complaint making the following allegations:

Acme Motors designs, manufactures, and sells an all-electric car, called the Greeny, which debuted in 2012. The Greeny was very popular with eco-conscious buyers, and all was going well for a number of years. Unfortunately, in 2016 the older model Greeny cars began to have a problem. Drivers began to experience unintended acceleration—without warning the car accelerates, and braking will not stop it.

Plaintiff David Driver purchased a new Greeny in 2013. He believes that this defect in his 2013 Greeny is what caused a horrible crash in 2017 that left him with persistent back pain, lost past income and future earning capacity, and unpaid medical bills.

777, 821 (2001) [hereinafter *Judicial Mind*] (“Like the rest of us, [judges] use heuristics that can produce systematic errors in judgment.”).

27. See ANDERSON ET AL., *supra* note 18, at 269 (explaining how triers of fact fall on background generalizations in the absence of experts or other direct evidence).

28. See *id.* at 101 (“In most contexts, inductive reasoning operates intuitively.”).

29. *Id.*

Driver alleges that the unintended acceleration problem is caused by electronic failures and an inadequate fault detection system, and that a safer design would include a brake override system. His complaint asserts legal theories of negligence, product liability (defective design), and gross negligence, and he seeks both compensatory and punitive damages.

Co-plaintiff Oscar Owner also purchased a new 2013 Greeny. He has not experienced the unintended acceleration problem or been injured, but he alleges that the value of his Greeny is dramatically lower than Acme represented due to this undisclosed defect and argues that Acme has breached its warranty and violated state consumer protection statutes by failing to disclose known problems with the car. He seeks compensation for the reduced resale value of his 2013 Greeny.

Now consider a series of pretrial decisions and the ways in which inferences play a role.

A. Motion to Dismiss

Acme has denied all of the plaintiffs' claims, and also alleges that Driver's accident was caused by his own negligence. In addition, Acme has filed a motion to dismiss under Federal Rule of Civil Procedure 12(b)(6), arguing that the plaintiffs fail to state a claim because they have not identified a specific defect responsible for unintended acceleration, and thus have not alleged sufficient facts to make plaintiffs' claims plausible.

Judge A denies the motion to dismiss, finding the allegations that the car unexpectedly accelerated and would not brake and that an alternative braking system would have stopped the car, to be facts rather than conclusions. Based on those pleaded facts, Judge A believes that inferences of negligence and defective design are at least as plausible as other inferences. In addition, Judge A believes that the complaint's allegations that prior to 2013 other Greeny owners had complained to Acme about injuries from unintended acceleration are sufficient to support a plausible inference of gross negligence. With regard to Owner's warranty claims, Judge A is satisfied that it is reasonable to infer a causal link between the pattern of unexpected acceleration and the decrease in resale value of Owner's car. In summary, Judge A holds

that the plaintiffs' complaint meets the requirements of Federal Rule of Civil Procedure 8 and that Acme's motion seeks more specificity than is required at the pleading stage.³⁰

Judge B is concerned that the complaint does little more than recite the elements required for negligence and design defect claims and treats many of the allegations as conclusions rather than facts. Even treating them as facts, Judge B is especially unconvinced by the inference that, based on customer complaints, Acme knew or should have known of a general problem with unintended acceleration. Judge B grants the motion to dismiss. Judge B does, however, grant plaintiffs leave to amend to identify more specifically the defect and safer alternative design and the sources of Acme's knowledge of a pattern of unintended acceleration, as well as facts tying publicity about the acceleration to changes in used Greeny prices.

B. Joinder of Parties and Claims

Assume that both judges have allowed this suit to go forward. Acme has filed a motion to sever the claims of Driver and Owner, arguing that they do not arise out of the same transaction or occurrence as required by Federal Rule of Civil Procedure 20.

Judge A denies the motion. Judge A believes that some of the evidence of breach, defect, and causation that will support the inferences needed for the personal injury claims will also support a strong inference with respect to the decreased value of the Greeny, and that evidence of Acme's knowledge (part of Driver's gross negligence claim) will also support an inference of a knowing violation of the state's consumer law. Based on his beliefs about the validity of those inferences from common evidence, Judge A concludes that there is both a logical relationship and significant evidentiary overlap between Driver's and Owner's claims.

Judge B, on the other hand, grants the motion to sever. Judge B concludes that evidence about the nature of Acme's design and knowledge of risks of harm has only a tangential relationship to

30. Cf. *In re Toyota Motor Corp.*, 754 F. Supp. 2d 1208, 1219–22 (C.D. Cal. 2010) (discussing whether the plaintiff adequately offered specific allegations of defect in Toyota's electronic throttle control system).

the resale value of Greeny vehicles, because any inference that the nature of the defect affected the resale value is weak at best. Instead, Judge B believes that a plausible inference of loss of value would require proof of lowered resale prices immediately after the public claims about of the unintended acceleration problem (whether or not such a problem really exists). In the absence of plausible inferences from shared evidence, Judge B concludes that the requirements of Rule 20 have not been met.

C. Discovery

Initial disclosures have been made and formal discovery is now under way. For example, the plaintiffs have sent Acme a request for production of documents that includes a request for “all communications received by Acme from Greeny purchasers claiming that a Greeny car from model years 2012–15 experienced unintended acceleration.” (All parties agree that the Greeny’s design did not change in any relevant way during this time period.) Acme has objected that the request is irrelevant and asserted that the cost of compliance would be disproportionate. The parties have conferred but have been unable to reach agreement, so the plaintiffs have filed a motion to compel production of the requested documents.

Judge A grants the motion to compel. Judge A sees a potential for reasonable inferences from other drivers’ experiences to plaintiffs’ claims. Judge A believes that the existence of other unintended acceleration accidents supports an inference that Driver’s car suffered from the same problem. In addition, the complaints themselves might show that Acme had been notified of a troubling pattern of malfunctions leading to injuries, which could support the inference required to prove gross negligence. Finally, thinks Judge A, the pattern of complaints might support an inference of the extent of the impact of the alleged defect on resale value. With regard to proportionality, because of Judge A’s assessment of the strength of the inference from other complaints to the elements of plaintiffs’ claims, the information sought is very important to resolving the issues. Judge A also infers from these two plaintiffs’ claims and the nature of the national car market that the Greeny’s safety issues may be causing nationwide

problems, making the issues at stake important and the overall amount in controversy quite large. Judge A believes from general experience that individual plaintiffs likely have fewer resources and less access to information than does Acme and that Acme has likely overstated the cost of compliance with this discovery request. All in all, Judge A concludes that the information sought is relevant and proportional to the needs of the case.

Judge B's approach is quite the opposite. Since Judge B granted the motion to sever, this version of the lawsuit includes only plaintiff Driver's claims. Judge B believes that complaints from other Greeny owners support only a very weak inference, if any, about what happened to Driver's car. Judge B thinks Driver will instead need to show plausible inferences from the evidence of the condition of Driver's own car, the accident involving Driver, and evidence about Acme's design of the 2013 vehicle. Nor does Judge B find an inference from complaint letters to gross negligence at all convincing. As to proportionality, Judge B (based on the assessment that the inferences are weak) believes that the requested complaints would not be at all important in resolving the liability issues. Although Judge B thinks a nationwide product defect could be significant, this discovery request is insufficiently tied to that, and the amount in controversy is limited to Driver's own damages. While Acme has greater access to information, Judge B believes based on the judge's experience as a lawyer and a judge that the plaintiffs' lawyer is probably seeking discovery about other owners' complaints primarily to run up Acme's costs and to seek out other potential clients. Judge B's conclusion: the inference from customer complaints to elements of Driver's claims is so weak that it is only marginally relevant, and the cost of compliance far exceeds the needs of the case. Judge B denies the motion to compel.

D. Summary Judgment

It is difficult to frame a short but rich and realistic hypothetical on summary judgment. Note, though, that analysis of inferences will be critical to the resolution of a summary judgment motion. Assume that Acme has filed a motion for partial summary

judgment on Driver's product liability claim, arguing that Driver will not have sufficient evidence to support an inference of defective design. In addition to the judges' differing assessment of probability reflected in their rulings on the 12(b)(6) motion, assume that part of the summary judgment dispute will include a decision about whether plaintiff's engineering expert satisfies the requirements of *Daubert*³¹ and will be allowed to testify.

Even the decision about whether to allow an expert to testify requires evaluation of inferences. When the question is whether the inferences to which the expert wishes to testify meet the admissibility requirements of *Daubert*, judges as gatekeepers evaluate scientific inferences.³² The case-specific factual underpinnings of the expert opinion might also differ, depending on what information has been unearthed during discovery, and a judge might also reject the reliability of an expert's inferences based on fewer bits of information, which in turn relates back to the discovery differences highlighted above. Judge A might ultimately rule that the expert's testimony can be considered, while Judge B might rule that it cannot.

It would not be surprising, then, if Judge A were to deny the summary judgment motion, finding that a reasonable jury could choose to draw the inferences needed for findings of design defect from the plaintiff's circumstantial evidence and expert testimony, and for Judge B to grant the motion, concluding that inferences of Acme's liability are too weak in light of alternative inferences of Acme's lack of fault and Driver's contributory negligence.

E. Putting it Together

Looking at all of these pretrial decisions, one can see that inference-drawing across a series of pretrial rulings can have a tremendous influence on the course of litigation. It is clearest that

31. See *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 597 (1993) (holding that in determining whether to admit an expert witness's scientific testimony, the trial judge should assess whether it is based on scientifically valid reasoning that can properly be applied to the facts at issue).

32. See Margaret Berger, *The Admissibility of Expert Testimony*, in REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 19–21 (Fed. Judicial Ctr., 3d. ed. 2011) (discussing the various considerations judges analyze when ruling on *Daubert* challenges).

judicial inferences play a decisive role in rulings on dispositive motions. However, inferences about facts also play a significant role in other procedural rulings, in ways that often lie beneath exercises of discretion and balancing tests.³³

This thought experiment, though, is an academic construct. Are inferences similarly pervasive in real cases? Part IV will use examples from actual litigation to highlight inferences at work in various pretrial contexts. And just as was true for the hypothetical dueling judges, real cases show judges finding different facts from the same record because they disagree about what inferences should be drawn.

IV. Judicial Inferences in Real Life

Real cases do not come in identical pairs for purposes of comparing inferences, but trial court decisions involving inferences are sometimes appealed, and the contrast between the trial court and appellate court decisions can turn, even in procedural rulings, on judges' disagreements about the plausibility of inferences.³⁴ Similarly, appellate decisions with a dissent may reveal that judges on the panel have chosen different inferences, and hence

33. Even though many such decisions would be reviewed on appeal using an "abuse of discretion" standard of review, the propriety of the exercise of discretion is intertwined with underlying fact finding, which in turn depends on the court's inferences. *See, e.g.,* Cazorla v. Koch Foods of Miss., LLC, No. 3:10cv135-DPJ-FKB, 2014 WL 12639863 (S.D. Miss. Sept. 22, 2014), *vacated and remanded*, 838 F.3d 540 (5th Cir. 2016) (discussing discovery orders); *see also infra* notes 153–179 and accompanying text (discussing Kuttner v. Zaruba, 819 F.3d 970 (7th Cir. 2016)).

34. The cases highlighted in this Part were identified by searching the Westlaw "Federal District Courts" database for cases decided in the prior twelve months. I searched for cases on particular topics (e.g. discovery, summary judgment, class actions, etc.), and then read all of them to find examples of cases in which inferences played an important role. Within that set, I searched for cases that had been reversed on appeal, or for cases in which there was a dissent in the court of appeals. From those results, I chose cases that would be good illustrations of the impact of inferences. This does not claim to be either a random or comprehensive study. It would be interesting to see a more quantitative study, perhaps of all the cases decided in a particular district over a given time period.

different facts.³⁵ This Part will examine some contrasting opinions as examples.

A. Dispositive Motions

The impact of inference is at its most obvious in rulings on dispositive motions—motions to dismiss for failure to state a claim under Rule 12(b)(6)³⁶ and motions for summary judgment. As with the hypothetical judges, the point is not that some judges are right and others are wrong, but that the same record can lead judges to opposite conclusions, based in large measure on the ways in which their “experience and common sense,” operating through unconscious heuristics and biases, guide their inferences.³⁷ The

35. See generally Suja Thomas, *Reforming the Summary Judgment Problem: The Consensus Requirement*, 86 FORDHAM L. REV. 2241 (2018) (suggesting that fact-based summary judgment appeals with dissents should be treated as per se indications that a reasonable jury could find for the nonmoving party). Decisions in the courts of appeal with dissents do show both inferences at play and judges who would choose different inferences from the same record. See, e.g., *Tyree v. Foxx*, 835 F.3d 35 (1st Cir. 2016) (drawing different inferences about the relevance of decisions similar to, but distinct from, the one that affected the plaintiff); *Fears v. Kasich (In re Ohio Execution Protocol Litig.)*, 845 F.3d 231 (6th Cir. 2016) (disagreeing about whether circumstantial evidence supports the inference that disclosure of the identity of a manufacturer of lethal injection drug would make it difficult for the state to acquire such drugs).

36. There are a huge number of pleading cases in which inferences play a key role—not surprising since the word “inference” is baked into the legal test created by Justice Kennedy’s opinion in *Iqbal*. See *Ashcroft v. Iqbal*, 556 U.S. 662 (2009). See, e.g., *Johnson v. City of New York*, 16-CV-6426(KAM)(VMS), 2018 WL 1597393, at *8 (E.D.N.Y. Mar. 31, 2018) (approving inferences in favor of the plaintiff in an employment case); *Wyson Corp. v. APN, Inc.*, 889 F.3d 267, 271–72 (6th Cir. 2018) (rejecting inference of customer confusion about the quality of pet food based on the court’s assumptions about consumer knowledge of “puffery”); *KAABOOWorks Servs., LLC v. Pils1*, No. 17-CV-02530-CMA-KLM, 2018 WL 2984801, at *6 (D. Colo. June 14, 2018) (finding inference of use or disclosure of stolen trade secrets plausible); *Zaidan v. Trump*, 317 F. Supp. 3d 8, 20 (D.D.C. 2018) (accepting inference that the government had placed the plaintiff on a “kill list” as plausible, despite other plausible inferences); *Ortiz v. Parkchester N. Condo.*, No. 16-CV-9646 (VSB), 2018 WL 2976011, at *6 (S.D.N.Y. June 13, 2018) (rejecting inference that existence of multiple prior lawsuits showed that violations were widespread and persistent).

37. See Chris Guthrie, Jeffrey J. Rachlinski & Andrew J. Wistrich, *Blinking on the Bench: How Judges Decided Cases*, 93 CORNELL L. REV. 1, 29 (2007) [hereinafter *Blinking*] (“The results of our CRT and judicial decision-making studies show that intuition influences judicial decision making.”).

differences can be observed on at least two levels: 1) which evidence in the record the judges notice and consider; and 2) which inferences the judges believe could reasonably be drawn from that evidence. In the pleading context, evaluation of inferences includes a comparative process; in order to keep the case alive, the nonmovant must convince the judge that the inference s/he needs is at least as believable as alternative inferences.³⁸

*1. Pleadings Motions: Lewis v. Bentley*³⁹

In ruling on motions to dismiss for failure to state a claim, the court is instructed to analyze the complaint to identify only pleaded “facts,” and then to determine whether the inferences the lawsuit needs to proceed can plausibly be drawn from those facts. As Justice Kennedy stated:

Determining whether a complaint states a plausible claim for relief will . . . be a context-specific task that requires the reviewing court to draw on its judicial experience and common sense. But where the well-pleaded facts do not permit the court to infer more than the mere possibility of misconduct, the complaint has alleged—but it has not “show[n]”—“that the pleader is entitled to relief.”⁴⁰

The requirement to go beyond “mere possibility” involves a comparison of inferences.⁴¹ Later in the opinion, Justice Kennedy rejects the plaintiffs’ inferences because there are “more likely explanations.”⁴² In ruling on 12(b)(6) motions, then, the trial court will be deciding which inference it finds more believable (and, using a de novo standard of review, the court of appeals will be doing the same analysis).⁴³

38. See *Iqbal*, 556 U.S. at 678 (“A claim has facial plausibility when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged.”).

39. *Lewis v. Bentley*, No. 2:16-CV-690, 2017 WL 432464, at *1 (N.D. Ala. Feb. 1, 2017), *aff’d in part, rev’d in part sub nom. Lewis v. Governor of Alabama*, 896 F.3d 1282 (11th Cir.), *reh’g granted*, 914 F.3d 1291 (11th Cir. 2018).

40. *Iqbal*, 556 U.S. at 679 (citations omitted).

41. *Id.*

42. *Id.* at 681.

43. See *Lewis*, 2017 WL 432464, at *2 (determining the plausibility of

Lewis v. Bentley arose out of a dispute between the State of Alabama and the City of Birmingham over the city's desire to adopt a minimum wage higher than the federally mandated \$7.25 per hour.⁴⁴ Birmingham passed a local ordinance with a higher minimum wage, but the State, just as Birmingham's ordinance was set to go into effect, enacted the "Alabama Uniform Minimum Wage and Right-to-Work Act."⁴⁵ According to its terms, the Act was intended to "ensure that [labor] regulation and policy is applied uniformly throughout the state."⁴⁶ It went beyond minimum wage law to establish the state's "complete control" over not only minimum wage policy, but also most other employment law issues.⁴⁷

A number of Birmingham residents and public interest groups filed suit, alleging that the Act had the purpose and effect of transferring control of employment in Birmingham from municipal officials elected by a majority-black local electorate to statewide legislators elected by a majority-white electorate, with the intent of discriminating on the basis of race against the people who live and work in Birmingham.⁴⁸ The district court found that Birmingham's complaint failed to plausibly allege intentional discrimination and dismissed the case on the pleadings.⁴⁹ Focusing on the city's equal protection claim, the Eleventh Circuit reversed.⁵⁰

Disagreements about inferences explain these divergent results. The trial judge—U.S. District Judge David Proctor⁵¹—focused on the supremacy of state government over

plaintiff's claims and drawing reasonable inferences in favor of the nonmovant); *Lewis*, 896 F.3d at 1289 ("[W]e review the grant of a Rule 12(b)(6) motion to dismiss de novo, 'accepting the allegations in the complaint as true and construing them in light most favorable to the plaintiff.'").

44. *Lewis*, 2017 WL 432464, at *1.

45. *Id.*

46. *Id.*

47. *Id.*

48. *Id.* at *2.

49. *Id.* at *13.

50. See *Lewis v. Governor of Ala.*, 896 F.3d 1282, 1297 (11th Cir. 2018) (citation omitted) ("We believe [plaintiffs'] 'allegations entitle them to make good on their claim.'").

51. See *David Proctor*, BALLOTPEDIA, <https://perma.cc/Z4CM-FQQC> (last visited Sept. 11, 2018) (providing background on Judge Proctor) (on file with the

municipal government and noted that other states had adopted similar laws.⁵² To Judge Proctor, these race-neutral explanations were more believable than an inference of intentional discrimination.⁵³ He found that there were “obvious alternative explanations” suggesting lawful conduct.⁵⁴

Contrast that with the Eleventh Circuit’s opinion—written by Judge Charles Wilson⁵⁵—which both highlighted different evidence and found different inferences to be plausible:

- “Birmingham . . . [is] home to the largest black population in Alabama (72%), which is reflected in the racial composition of its city council.”⁵⁶
- The bill was introduced by a white state representative from a town where only 1.5% of the residents are black, with eventual support from fifty-two additional sponsors, all of whom were white.⁵⁷
- No black member of the Alabama legislature voted in favor of the bill.⁵⁸
- The State of Alabama has a “deep and troubled history of racial discrimination,” and “has consistently impeded the efforts of its black citizens to achieve social and economic equality.”⁵⁹
- In terms of predictable impact, the Act “immediately denied a significant wage increase to roughly 40,000

Washington and Lee Law Review).

52. *Lewis v. Bentley*, No. 2:16-CV-690, 2017 WL 432464, at *1 (N.D. Ala. Feb. 1, 2017), *aff’d in part, rev’d in part sub nom. Lewis v. Governor of Ala.*, 896 F.3d 1282 (11th Cir.), *reh’g granted*, 914 F.3d 1291 (11th Cir. 2018) (stating that plaintiffs’ allegation of intentional discrimination failed to “nudge” their claim across the plausibility threshold).

53. *See id.* at *13 (“Without specific factual allegations of an intent to discriminate on the part of any particular legislators, plaintiffs’ equal protection claims fail.”).

54. *Id.* at *11.

55. *See Charles Wilson (Florida)*, BALLOTPEDIA, <https://perma.cc/3B96-DK24> (last visited Sept. 11, 2018) (providing background on Judge Wilson) (on file with the Washington and Lee Law Review).

56. *Lewis*, 896 F.3d at 1287–88.

57. *Id.* at 1288.

58. *Id.*

59. *Id.* at 1295.

Birmingham residents, the vast majority of whom were black.”⁶⁰

Judge Wilson and the members of the Eleventh Circuit panel evaluated inferences quite differently from Judge Proctor, finding that these “facts plausibly imply discriminatory motivations were at play.”⁶¹ They therefore found dismissal on the pleadings to have been erroneous.⁶²

2. *Summary Judgment: Chadwick v. WellPoint, Inc.*⁶³

Rule 56 of the Federal Rules of Civil Procedure provides that summary judgment “shall” be granted “if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.”⁶⁴ Courts applying this test regularly recite that a dispute is “genuine” if the evidence is such that a reasonable jury could grant a verdict in favor of the nonmovant.⁶⁵ While the judge should not be comparing inferences,⁶⁶ some opinions cite the possibility of alternative inferences in rejecting the one sought by the nonmovant as unreasonable.⁶⁷ Judicial preferences for differing inferences therefore can have a significant impact on their rulings on fact-based summary judgment motions.⁶⁸

60. *Id.*

61. *Compare* Lewis v. Governor of Ala., 896 F.3d 1282, 1295 (11th Cir. 2018) (finding plaintiffs’ “detailed factual allegations” support plausible discriminatory motivations), *with* Lewis, 2017 WL 432464, at *13 (determining plaintiffs did not support “conclusory, shotgun allegations” of discriminatory motivations).

62. *See* Lewis, 896 F.3d at 1299 (deciding that plaintiffs have stated plausible claims).

63. 550 F. Supp. 2d 140 (D. Me. 2008), *rev’d*, 561 F.3d 38 (1st Cir. 2009).

64. FED. R. CIV. P. 56(a).

65. *See* Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986) (citation omitted) (stating that at summary judgment, the trial judge should not “weigh the evidence and determine the truth of the matter”).

66. *But see* Ryan Lee Hart, *Deterrence and Fairness: Why the Current Financial Crisis Demands a Product-Oriented Relaxation of the PSLRA*, 5 SETON HALL CIR. REV. 411, 430 (2009) (noting that judges often compare inferences when determining if the scienter requirement is fulfilled in securities class actions).

67. *See* Chadwick, 550 F. Supp. 2d at 145–46 (rejecting the nonmoving party’s inference and accepting the inference drawn by the moving defendant).

68. Although they do not always explicitly refer to “inferences,” summary

Laurie Chadwick, a longtime employee of WellPoint, was denied a promotion.⁶⁹ She alleged that WellPoint “failed to promote her because of a sex-based stereotype that women who are mothers, particularly of young children, neglect their jobs in favor of their presumed childcare responsibilities,” and filed suit against

judgment cases turning on the likely sufficiency of the circumstantial evidence in the summary judgment record also turn on judges’ assessment of whether inferences would be reasonable. One of the best known examples of differing inferences in the summary judgment context is *Scott v. Harris*, 550 U.S. 372 (2007), in which the district judge, court of appeals judges, and Justice Stevens disagreed with the Supreme Court majority about the inferences to be drawn from a videotape and other parts of the summary judgment record. Compare *Scott v. Harris*, 550 U.S. 372, 380–81 (2007) (majority opinion) (“Respondent’s version of events is so utterly discredited by the record that no reasonable jury could have believed him.”), with 550 U.S. 372, 390 (2007) (Stevens, J., dissenting) (“More importantly, [the videotape] surely does not provide a principled basis for depriving the respondent of his right to have a jury evaluate the question . . .”), and *Harris v. Coweta Cty.*, 433 F.3d 807, 815 (11th Cir. 2005) (rejecting “the defendants’ argument that Harris’ driving must, as a matter of law, be considered sufficiently reckless to give Scott probable cause to believe that he posed a substantial threat of imminent physical harm to motorists”), and *Harris v. Coweta Cty.*, No. 3:01CV148, 2003 WL 25419527, at *5 (N.D. Ga. Sept. 25, 2003) (finding that “a fact issue remains regarding whether Scott violated the Fourth Amendment by using excessive force to seize Harris”). See, e.g., *Bell v. Prefix, Inc.*, 321 F. App’x 423, 426–27 (6th Cir. 2009) (analyzing inferences that could be drawn from plaintiff’s evidence of pretext in FMLA case); *Corbitt v. Home Depot U.S.A., Inc.*, 589 F.3d 1136, 1165 (11th Cir. 2009) (disagreeing regarding inferences to be drawn in sexual harassment and retaliation case), *vacated*, 598 F.3d 1259 (2010); *Peck v. Elyria Foundry Co.*, 347 F. App’x 139, 142–43 (6th Cir. 2009) (drawing contrasting inferences in Title VII case with majority and dissent emphasizing different evidence from the summary judgment record). The reversal rate of orders granting summary judgment is another indicator that judges disagree with each other significantly about what inferences are reasonable. See Jeffrey W. Stempel, *Taking Cognitive Illiberalism Seriously: Judicial Humility, Aggregate Efficiency, and Acceptable Justice*, 43 LOY. U. CHI. L.J. 627, 650–53 (2012) (emphasizing that trial court decisions on summary judgment are affirmed only slightly more than half of the time). For further examples of trial and appellate court judges disagreeing about inferences in the summary judgment context, see Elizabeth M. Schneider, *The Dangers of Summary Judgment: Gender and Federal Civil Litigation*, 59 RUTGERS L. REV. 705, 739–45 (2007) (noting the different inferences that can be drawn from evidence about the work environment).

69. *Chadwick*, 561 F.3d at 40–41.

the company.⁷⁰ At the trial court level, the magistrate judge and district judge granted WellPoint's motion for summary judgment, concluding that Chadwick's circumstantial evidence could not support a reasonable inference of discrimination based on sex.⁷¹ The First Circuit panel (using a *de novo* standard of review) reversed, finding that a reasonable jury could draw just such an inference.⁷²

At the time WellPoint chose to promote a different employee (also a woman) to the desired "Team Lead" position, Chadwick was the mother of four: an eleven-year-old child plus six-year-old triplets.⁷³ Her husband was the children's primary caregiver, and there was no suggestion in the record that her work performance had ever suffered due to childcare responsibilities.⁷⁴ Chadwick had worked in her current position at WellPoint for seven years, and she scored 4.4 out of 5.0 on her most recent performance review.⁷⁵

The other finalist for the Team Leader job, Donna Ouelette, also had children, ages ten and fifteen.⁷⁶ (It is unclear, though, whether the decisionmaker was aware that Ouelette was a parent.⁷⁷) She had been in her position for a year, and she scored 3.84 on her performance review.⁷⁸ After interviews with a panel of three employees, including Chadwick's supervisor Nanci Miller, Ouelette was chosen for the promotion.⁷⁹

70. *Id.* at 41.

71. *See Chadwick*, 550 F. Supp. 2d at 147 (opining that there was nothing contained in the summary judgment record beyond an "assumption" that Miller discriminated against working mothers of young children).

72. *See Chadwick v. WellPoint, Inc.*, 561 F.3d 38, 48 (1st Cir. 2009) ("We only conclude that Chadwick has presented sufficient evidence of sex-based stereotyping to have her day in court.").

73. *Id.* at 42.

74. *Id.*

75. *Id.* at 41–42.

76. *Id.* at 42.

77. *Id.* at 42 n.4 ("[T]he record does not support the inference that WellPoint knew of Ouelette's status as a mother of two children, while it is uncontested that WellPoint knew of Chadwick's children."). *But see Chadwick v. WellPoint, Inc.*, 550 F. Supp. 2d 140, 141 n.1 (D. Me. 2008) (putting the burden on the plaintiff to show a lack of awareness of Ouelette's children and, in the absence of evidence, assuming awareness).

78. *Chadwick*, 561 F.3d at 41–42.

79. *Id.*

Because the summary judgment context requires the judge to view all evidence in the light most favorable to the nonmovant, both the trial and appellate courts assumed that Chadwick had stronger qualifications than Ouelette.⁸⁰ They also recognized that society is influenced by stereotypes about working women with children.⁸¹ However, they disagreed decisively about the inferential power of Chadwick's circumstantial evidence, which consisted primarily of the information narrated above plus comments made to Chadwick in the course of the decision about promotion.⁸²

First, when Miller learned that Chadwick had three six-year-olds, she said, "Oh my—I did not know you had triplets . . . [sic] Bless you!"⁸³ U.S. District Judge D. Brock Hornby⁸⁴ considered inferences in favor of the movant—perhaps any bias reflected by this remark was a gender-neutral concern about parents rather than mothers.⁸⁵ He looked for evidence that Miller would not have said the same thing to the father of triplets, found it lacking, and therefore rejected an inference that gender played a role in Miller's decision.⁸⁶ Based on his experience and his beliefs about how the world works, Judge Hornby inferred that "[b]less you" was a phrase with "ordinary meaning"—a mere

80. Note, though, that the district judge conceded only that Chadwick had "somewhat better qualifications," *Chadwick*, 550 F. Supp. 2d at 142, while the appellate panel stated, "[i]t is a fair inference that Chadwick's qualifications significantly outweighed those of Ouelette." *Chadwick*, 561 F.3d at 42 n.3.

81. See *Chadwick*, 561 F.3d at 45 ("[S]ex-based stereotypes regarding women, families, and work are alive and well in our society."); *Chadwick*, 550 F. Supp. 2d at 146 ("[C]ultural stereotypes certainly exist in our society about a mother's role.").

82. See *Chadwick*, 561 F.3d at 46 n.9 (finding a jury "could infer" Chadwick was rejected because "as a woman with four young children, [she] would not give her all to her job"); *Chadwick*, 550 F. Supp. 2d at 147 (opining that Chadwick has only "assumption or conjecture that Miller was stereotyping her").

83. *Chadwick*, 550 F. Supp. 2d at 142.

84. See *D. Brock Hornby*, BALLOTPEdia, <https://perma.cc/7UTG-EWDA> (last visited Oct. 14, 2019) (providing background on Judge Hornby) (on file with the Washington and Lee Law Review).

85. See *Chadwick*, 550 F. Supp. 2d at 146 (suggesting Miller's comments could have been made out of admiration for parents raising triplets).

86. See *id.* at 147 ("Nothing in the record suggests a general atmosphere of sex-based stereotyping.").

“friendly exclamation” with uses ranging from a response to a sneeze to a religious invocation.⁸⁷

In contrast, Judge Normal Stahl,⁸⁸ writing for the First Circuit panel, noted that “a jury could reasonably conclude that Miller meant that she felt badly for Chadwick because her life must have been so difficult as the mother of three young children” and “that Miller’s comment suggested pity rather than respect.”⁸⁹ This, together with additional remarks, convinced the appellate panel that a jury could reasonably infer that the promotion was denied based on an assumption that as a *woman* with four small children, Chadwick would not “give her all to her job.”⁹⁰ The appellate court also found it significant that Miller learned of the children just two months before denying Chadwick the promotion.⁹¹

Second, during Chadwick’s interview for the promotion, one of the interviewers made an explicit reference to Chadwick’s parenthood.⁹² In reacting to Chadwick’s answer to a question about supervising employees who failed to meet deadlines, the interviewer said, “Laurie, you are a mother [sic] would you let your kids off the hook that easy, if they made a mess in [their] room, would you clean it or hold them accountable?”⁹³ District Judge Hornby again saw no sex stereotyping, because the same question *could* have been asked of a father.⁹⁴ Doing so implicitly chose an inference that the interviewer was thinking of parents generally

87. *Id.* at 145.

88. *See Norman Stahl*, BALLOTPEDIA, <https://perma.cc/TFC5-RWJK> (last visited Sept. 25, 2019) (providing background on Judge Stahl) (on file with the Washington and Lee Law Review). Judge Stahl was appointed to the First Circuit to replace Justice David Souter when the latter was appointed to the U.S. Supreme Court. *Id.*

89. *Chadwick v. WellPoint, Inc.*, 561 F.3d 38, 47 n.10 (1st Cir. 2009).

90. *Id.*

91. *See id.* at 47 (“The young age and unusually high number of children would have been more likely to draw the decisionmaker’s attention and strengthen any sex-based concern she had that a woman with young children would be a poor worker.”).

92. *Chadwick v. WellPoint, Inc.*, 550 F. Supp. 2d 140, 143 (D. Me. 2008).

93. *Id.*

94. *See id.* at 145 (“It may not have been good business judgment for the interviewer to relate home circumstances to the workplace, but it is not sex-based: the principle and the question apply equally to discipline by a father.”).

rather than thinking of women with children.⁹⁵ Judge Stahl noted but did not explicitly draw inferences from this question.⁹⁶

Chadwick's most significant circumstantial evidence consisted of statements she alleged were made by Miller in explaining why Chadwick was not chosen for the promotion.⁹⁷ In the same conversation, Miller told Chadwick that "if [the three interviewers] were in your position, they would feel overwhelmed."⁹⁸ WellPoint took the position that the real reason Chadwick was denied the promotion was that she interviewed badly, and that Miller was just trying to offer a less hurtful reason for rejection.⁹⁹ Judge Hornby recognized that the remark reflected discrimination against caregivers, but again would not recognize as reasonable an inference that it was based on sex:

If the case went to a jury on this record, the jury would have to speculate in order to reach a conclusion that Miller stereotyped working mothers and that she treated working mothers of young children worse than (given the opportunity) she would treat working fathers of young children. . . . *Might Miller harbor such stereotypes? Yes; the jury might well suspect it. But suspicion is not enough*; despite what might be the popular

95. *Id.*

96. *See Chadwick*, 561 F.3d at 42 (noting only that the district court concluded the comment can apply to a mother or a father).

97. *See id.* at 47 ("It was nothing you did or didn't do. It was just that you're going to school, you have kids and you just have a lot on your plate right now.").

98. *Id.* at 42.

99. *Chadwick*, 550 F. Supp. 2d at 143. Miller so testified at her deposition, but in the summary judgment context both courts recognized that a jury, whose job it is to assess credibility, could choose to disbelieve her testimony. *See Chadwick*, 561 F.3d at 47 ("A jury could reasonably question the veracity of this [Miller's] second explanation . . ."); *Chadwick*, 550 F. Supp. 2d at 145 n.10 ("[A] jury could disbelieve [Miller's] explanation and find it pretextual."). As the court of appeals noted, Miller explained the non-promotion in one way to Chadwick (that she had too much on her plate with her kids and school) and in a very different way in her deposition (that Chadwick had performed poorly in her interviews). A jury could reasonably question the veracity of this second explanation given that Chadwick was an in-house, long-time employee who had worked closely with her interviewers, had received stellar performance reviews, and was already performing some of the key tasks of the Team Lead position. A jury could rightly question whether brief interviews would actually trump Chadwick's apparently weighty qualifications, or whether, given the other circumstantial evidence discussed above, Chadwick was really passed over because of sex-based stereotypes. *Chadwick*, 561 F.3d at 47–48.

intuition about what Miller meant, I conclude that her use of sexual stereotypes cannot be shown by a preponderance of the evidence on this record.¹⁰⁰

For this judge, the missing link was something more specific proving that a *man* with four young children would not have been treated the same way, and he characterized Chadwick's evidence as merely prevalent stereotypes plus a "sexually ambiguous utterance."¹⁰¹ The plaintiff's superior qualifications, the series of remarks, and the background of societal stereotyping were not enough to make an inference sufficiently believable compared to other possibilities.¹⁰²

Compare that to Judge Stahl's opinion for the First Circuit, looking at the same record and applying the same standard of proof.¹⁰³ It paid far more attention to the statement "it was nothing you did or didn't do," the reference to "kids," and the suggestion that the interviewers imagined Chadwick would be "overwhelmed."¹⁰⁴ Putting this conversation together with the other circumstantial evidence (as read through the appellate court's inferences), this opinion required no explicit comparison to males to infer that gender stereotypes, not just parenting stereotypes, were at work:

Given the common stereotype about the job performance of women with children and given the surrounding circumstantial evidence presented by Chadwick, we believe that a reasonable jury could find that WellPoint would not have denied a promotion to a similarly qualified man because he had "too much on his plate" and would be "overwhelmed" by the new job, given "the kids" and his schooling.¹⁰⁵

100. *Chadwick*, 550 F. Supp. 2d at 147 (emphasis added).

101. *Id.* at 147 n.15.

102. *Id.*

103. *Chadwick v. WellPoint, Inc.*, 561 F.3d 38, 43 (1st Cir. 2009).

104. *Id.* at 47.

105. *Id.* at 48. The opinion also noted the "parallel stereotypes presuming a lack of domestic responsibilities for men." *Id.* The First Circuit affirmed the trial court's decision to exclude a proposed plaintiff-side expert witness on sex stereotyping, but it did so on the narrower ground of the expert's lack of knowledge about the facts of this particular case, a deficiency that presumably could have been remedied on remand. *See id.* at 49 n.14 ("Rather, we understand the district court to have concluded that Dr. Still could not offer information helpful to a trier of fact due to her particular lack of familiarity with the details

Once again, then, the courts' opinions show an inference gap, and one that cannot be explained by the record itself.¹⁰⁶ Two judges (the district judge and magistrate judge) found an inference of sex-based discrimination so unlikely that summary judgment was granted.¹⁰⁷ Three judges (the First Circuit panel), reviewing the case *de novo*, found that such an inference would be proper, so that the case should go to the jury.¹⁰⁸

B. Other Pretrial Rulings

Inferences that are contested but that end litigation are especially troubling. But the same phenomenon of judges' reliance on arguable inferences also impacts non-dispositive pretrial rulings. Many such decisions provide wide discretion for the trial judge, and they are governed by general standards or multi factor tests rather than strict rules.¹⁰⁹ The decisions, though, will be based on facts as the judge finds them, whether explicitly or implicitly, consciously or subconsciously. Those forces create a context in which the judge's beliefs about "facts" can play a powerful role when the governing standards are applied to them.¹¹⁰

of this case.”).

106. *Id.* at 47.

107. *See Chadwick v. WellPoint, Inc.*, 550 F. Supp. 2d 140, 142 (D. Me. 2008) (“I agree with the recommendation (although not all the reasoning) of the magistrate judge, and GRANT the defendants’ motion for summary judgment.”).

108. *See Chadwick*, 561 F.3d at 48 (“In sum, we find that Chadwick has put forth sufficient evidence of discrimination that a reasonable jury could conclude that the promotion denial was more probably than not caused by discrimination.”). On remand, the parties apparently settled the case in a way that included a judgment for defendant on stipulated facts that resembled defendants’ factual claims and that stipulates to a disagreement about what Miller said to Chadwick. *See Joint Motion as to Stipulated Facts and for Entry of Final Judgment for Defendants* at 5, *Chadwick v. WellPoint, Inc.*, 550 F. Supp. 2d 140 (D. Me. 2008) (No. 07-CV-70) (“The parties agree that Defendants’ decision to award the position to Ouelette was not based upon gender or any sex based stereotype.”). Chadwick still worked for WellPoint at the time of the stipulation. *Id.* at 1.

109. *See, e.g.*, FED. R. CIV. P. 26(b)(1); *Wittmann v. Unum Life Ins. Co. of Am.*, No. CV 17-9501, 2018 WL 3374164, at *2 (E.D. La. July 11, 2018) (proportionality factors for adjudicating protective orders).

110. *See Chadwick*, 550 F. Supp. 2d at 147 (believing that statements made

In making these rulings the judge is finding the facts and not merely deciding whether there is a genuine factual dispute for later jury determination. Except in very limited circumstances, the standard of proof for these pretrial rulings is the conventional “preponderance of the evidence” standard: more likely than not.¹¹¹ The judge is undertaking a comparative task in evaluating information and reaching conclusions. And once again, it is the mental exercise of finding some inference more believable that is the source of differing outcomes. This section will highlight three

to plaintiff were not gender-based stereotypes, thus she could not maintain action under Title VII).

111. See Kevin M. Clermont, *Jurisdictional Fact*, 91 CORNELL L. REV. 973, 974 (2006) (noting the usual standard, and discussing the problems associated with establishing jurisdictional facts by a preponderance of the evidence when they relate to the underlying merits of the case).

examples: two are disputes about discovery,¹¹² and one relates to class certification.¹¹³

112. Discovery relevance orders quite often turn on decisions about whether the information sought would support an inference in favor of the party seeking discovery. *Cf.* FED. R. EVID. 401(a) (“Evidence is relevant if . . . it has any tendency to make a fact more or less probable than it would be without the evidence . . .”). Balancing factors related to proportionality and requests for protective orders will also turn on the court’s belief about underlying facts to be inferred. For example, how important are the issues at stake; what amount is really in controversy; how important is the requested discovery to resolution of the issues; what will the benefit of the information be? *See* FED. R. CIV. P. 26(b)(1) (detailing proportionality factors). Privilege decisions may turn on facts such as whether a document was created in anticipation of litigation, whether a lawyer was acting in her capacity as an attorney, or whether a communication was kept confidential, and many of those decisions will be inferences from circumstantial evidence. *See, e.g.,* *Sanofi-Synthelabo v. Apotex Inc.*, 299 F. Supp. 2d 303, 307 (S.D.N.Y. 2004) (determining purpose of the attorney-client communication). Even managerial decisions may turn on the judge’s beliefs about the strength of the inferential link between discovery and legal claims, the motivations of parties and attorneys, and the cost of discovery. For some recent examples of discovery decisions based on inferences, see *Wittmann v. Unum Life Ins. Co. of Am.*, No. CV 17-9501, 2018 WL 3374164, at *2 (E.D. La. July 11, 2018) (inference from income sources to allegations of conflict of interest); *Shah v. Metro. Life Ins. Co.*, No. 2:16-CV-1124, 2018 WL 2309595, at *10 (S.D. Ohio May 22, 2018) (inference from employee rewards and bonuses to their handling of plaintiff’s disability claim); *English v. Wash. Metro. Area Transit Auth.*, 323 F.R.D. 1, at *7 (D.D.C. 2017) (inferences from bus driver’s pre-accident activities to negligence in driving and dragging plaintiff under bus); *Does I-XIX v. Boy Scouts of Am.*, No. 1:13-CV-00275, 2017 WL 3841902, at *3 (D. Idaho Sept. 1, 2017) (inference between content of Boy Scout files and claims of misrepresentation and abuse); *Bias v. Tangipahoa Par. Sch. Bd.*, No. CV 12-2202, 2017 WL 679365, at *5 (E.D. La. Feb. 21, 2017) (inference between plaintiff’s military records, transfer, and claim of retaliation for filing False Claims Act suit); *Centeno v. City of Fresno*, No. 1:16-CV-00653, 2016 WL 7491634, at *5 (E.D. Cal. Dec. 29, 2016) (inference between prior complaints about defendant officers and actions in current excessive force claim).

113. The requirements for class certification turn on fact findings, many of which in turn are based on inferences. *See, e.g.,* *Menocal v. GEO Grp.*, 882 F.3d 905, 918 (10th Cir. 2018) (finding the predominance requirement for a 23(b)(3) class action met when plaintiffs will be able to prove causation through class-wide inference); *Ark. Teachers Ret. Sys. v. Goldman Sachs Grp.*, 879 F.3d 474, 483 (2d Cir. 2018) (recognizing that “fraud on the market” theory is a presumption that an inference can be drawn); *Waggoner v. Barclays PLC*, 875 F.3d 79, 89 (2d Cir. 2017), *cert. denied*, 138 S. Ct. 1702 (2018) (discussing factors from which inference of efficient market may be drawn); *Rikos v. Procter & Gamble Co.*, 799 F.3d 497, 512–13 (6th Cir. 2015) (finding that materiality of misrepresentations could support an inference of reliance for entire class).

1. *Relevance and Protective Orders: Cazorla v. Koch Foods of Mississippi, LLC*¹¹⁴

Hispanic employees of Koch Foods, a poultry processor, alleged that they were subjected to harassment and abuse on the job.¹¹⁵ Koch, on the other hand, claimed that the employees had made up the allegations in order to get U visas, which are available to abuse victims who assist in government investigations.¹¹⁶

Those opposing positions led to a discovery dispute: the company sought discovery of any information related to the employees' U visa applications.¹¹⁷ The plaintiffs objected, arguing that the discovery would reveal to Koch the immigration status of any applicants and their families, creating risks of job loss and deportation.¹¹⁸ The magistrate judge and district judge allowed U visa-related discovery but entered a protective order prohibiting certain uses of the information.¹¹⁹ The Fifth Circuit vacated the trial court's order.¹²⁰

Koch Foods operates a large poultry plant in Morton, Mississippi, and the dispute underlying this lawsuit arose out of allegations about harassment in the room where approximately eighty-five employees debone and package chicken thighs.¹²¹ The workers in this room were almost all Hispanic, most were illiterate and spoke little English, and many were undocumented.¹²² Here are the workers' allegations, as summarized by the Fifth Circuit:

Koch supervisors allegedly groped female workers, and in some cases assaulted them more violently; offered female workers money or promotions for sex; made sexist and racist comments;

114. No. 3:10cv135, 2014 WL 12639863 (S.D. Miss. Sept. 22, 2014), *vacated*, 838 F.3d 540 (5th Cir. 2016).

115. *Cazorla*, 838 F.3d at 544.

116. *Id.*

117. *Id.*

118. *Id.*

119. *Cazorla*, 2014 WL 12639863, at *5–6. For reasons relating to statutory interpretation, the discovery order was certified for interlocutory review. *Cazorla*, 838 F.3d at 548 n.16.

120. *See Cazorla*, 838 F.3d at 564 (“Rather than impose an order of our own, we remand to the district court to devise an approach to U visa discovery that adequately protects the diverse and competing interests at stake.”).

121. *Id.* at 544.

122. *Id.*

punched, elbowed, and otherwise physically abused workers of both sexes; and demanded money from them in exchange for permission for bathroom breaks, sick leave, and transfers to other positions When workers complained or resisted, Koch managers allegedly ignored them, and some debone supervisors allegedly retaliated by docking their pay; demoting, reassigning, or firing them; and threatening to physically harm them or have them arrested or deported.¹²³

Ten workers filed the first claims with the Equal Employment Opportunity Commission (EEOC) in 2009, and they and a few more followed up with lawsuits in 2010 and 2011.¹²⁴ Meanwhile in 2010, the EEOC launched its own investigation, found reasonable cause to believe a violation had occurred, and filed its own suit identifying a class of about fifty to seventy-five individuals.¹²⁵ The cases were consolidated, and several additional employees intervened in the EEOC's suit.¹²⁶

Koch denied the allegations, arguing that all of the complainants made up their charges to qualify for improved immigration status under the federal U visa program.¹²⁷ That denial defense led to the discovery requests at issue here.¹²⁸ The claimants requested a protective order under Federal Rule of Civil Procedure 26(c), arguing that the information sought was not relevant, and that even if it was relevant, the benefit of the information to Koch was outweighed by the harm that compliance would cause to the claimants and others.¹²⁹

123. *Id.* at 544–45.

124. *Id.* at 545. Those first lawsuits were stayed while the EEOC charges were being resolved. *Id.*

125. *Id.* at 545–46.

126. *Id.* at 546.

127. *Id.* at 545. The U visa program offers four years of nonimmigrant status to qualifying individuals and their family members and allows them to apply for green cards. *Id.* (citation omitted). Those with pending U visa applications may also attain work authorization. *Id.* The program is available to victims of substantial physical or mental abuse who aid a law enforcement agency in investigating the alleged offenses. *Id.* That agency must certify that the applicant is aiding the investigation, and the U.S. Customs and Immigration Service (USCIS) must conduct its own de novo review of relevant evidence and confirm the victim's eligibility. *Id.*

128. *Id.* at 547.

129. *Id.* at 546.

The magistrate judge, district judge,¹³⁰ and Fifth Circuit panel all addressed the same balancing test in evaluating the defendant's discovery request and plaintiffs' request for a protective order: did the potential relevance of the U visa information outweigh the *in terrorem* effect of revealing that immigration-relevant information to Koch? In making that decision, the trial level judges and Fifth Circuit judges differed in their factual beliefs about both relevance and the fears held by immigrant populations.¹³¹

Implementation of the Rule 26(c) balancing test required subsidiary fact finding in order to determine the extent of relevance and harm.¹³² At the trial level, with respect to relevance, the magistrate judge and district judge found the complainants' credibility to be a central issue and the immigration information highly relevant to assessing it.¹³³ Those judges concurred with Koch's argued inference that the existence of an "exponential jump" or "spike" in claims after the EEOC became involved,¹³⁴ coupled with applications for U visas, was relevant to the issue of

130. See Daniel P. Jordan III, BALLOTPEDIA, <https://perma.cc/EBP6-ZMET> (last visited Sept. 16, 2019) (providing background on Judge Jordan) (on file with the Washington and Lee Law Review).

131. In considering many discovery disputes, the court is using the information at hand to predict what will happen in the future rather than assessing the comparative probability of past events. *Id.* Nevertheless, the factors that underlie discovery orders are very fact-based. *Id.* At the trial level, "[t]he court's responsibility, using all the information provided by the parties, is to consider these and all the other factors in reaching a case-specific determination of the appropriate scope of discovery." FED R. CIV. P. 26(c) advisory committee's note to 2015 amendment.

132. See FED R. CIV. P. 26(c) (requiring a proportionality calculation that weighs the potential benefit against the harms).

133. See *Cazorla v. Koch Foods of Miss., LLC*, No. 3:10cv135, 2014 WL 12639863, at *5–6 (S.D. Miss. Sept. 22, 2014) (using the "clearly erroneous" or "contrary to law" standard of review to defer to the magistrate judge even at the trial level (quoting FED. R. CIV. P. 72(a))). With minor exceptions, the district judge approved of the magistrate judge's order. *Cazorla v. Koch Foods of Miss., LLC*, 838 F.3d 540, 564 (5th Cir. 2016).

134. See *Cazorla*, 2014 WL 12639863, at *5 (stating only eight people initially filed claims with the EEOC, while in its Third Amended Complaint the EEOC identified 115 claimants, 44 of whom were women who claimed to have been sexually harassed and the rest of whom claimed some other kind of harassment or injury).

the claimants' credibility and thus to the truth of the underlying claims.¹³⁵

With respect to prejudice if discovery were allowed, the trial judges refused to infer from the claimants' immigration and employment situation that being forced to reveal the U visa applications to Koch would have an *in terrorem* effect on the claimants themselves or on others who might find themselves in a similar situation.¹³⁶ First, the trial judges found none of the named plaintiffs work for Koch anymore, so they would not fear being fired.¹³⁷ Further, inferred the trial judges, claimants who had applied for U visas had already revealed to federal immigration authorities that they were not properly in the United States, so even if Koch reported them to immigration officials there could be no additional harm.¹³⁸ At the trial level then, the judges discounted the claimants' statements of their own subjective fears and did not infer future harm from disclosure to Koch.¹³⁹

The Fifth Circuit judges, in an opinion written by Judge Patrick Higginbotham,¹⁴⁰ might well not have vacated the order based only on private interests, given the very deferential "abuse of discretion" standard of review.¹⁴¹ They did agree that the

135. See *id.* (agreeing with Koch Foods that "given the spike in claims . . . coupled with the information provided in camera, there is a sufficient basis to find relevance").

136. See *id.* (determining that the plaintiff's *in terrorem* argument is based on a far broader interpretation of the Magistrate Judge's order than its narrow application and carries less weight than the probative value of the discovery).

137. See *id.* at *6 n.8 ("Even as to the other aggrieved individuals, it appears that a small number remain employed, and some of them may have other protection. Those that do not could be addressed in a protective order.").

138. *Id.*

139. See *id.* (judging claimants' arguments as holding very little weight with regard to the *in terrorem* effects of the discovery at issue).

140. See Patrick Higginbotham, BALLOTPEDIA, <https://perma.cc/X2JA-M4RX> (last visited Aug. 29, 2019) (providing general information on Judge Higginbotham) (on file with the Washington and Lee Law Review).

141. See *Cazorla v. Koch Foods of Mississippi, LLC*, 838 F.3d 540, 547 (5th Cir. 2016). As the Fifth Circuit opinion notes, the trial court will be found to have abused its discretion in balancing only "when a relevant factor that should have been given significant weight is not considered; when an irrelevant or improper factor is considered and given significant weight; and when all proper factors, and no improper ones, are considered, but the court, in weighing those factors, commits a clear error of judgment." *Id.* (quoting *Kern v. TXO Prod. Corp.*, 738

information sought was relevant for purposes of impeachment.¹⁴² But their inferences were different. For example, the Fifth Circuit found that the “spike in claims” number, on its own, was “not particularly suggestive of mass fraud.”¹⁴³ Instead, for example, “the EEOC may have discovered additional harassment claimants during the pre-suit conciliation and investigation processes.”¹⁴⁴ The appellate judges relied on information about statutory provisions that deter false U visa claims,¹⁴⁵ and also cited evidence suggesting a pattern of abuse of immigrant workers in the poultry industry.¹⁴⁶

Other differences relate to the “prejudice” side of the balancing test. The appellate judges inferred that disclosure of the U visa information would cause significant harm, both to the individual claimants and to their family members.¹⁴⁷ With respect to employment, the Fifth Circuit judges believed that the evidence showed “a risk that U visa discovery will cause some claimants or family members to lose their jobs.”¹⁴⁸ Nor did the appellate judges conclude that disclosure to U visa processors removed fear of all immigration consequences.¹⁴⁹ Instead, it found that:

F.2d 968, 970 (8th Cir. 1984)). A finding of abuse of discretion could thus be based on the evidence considered rather than the inference itself. *Id.* at 547. Nevertheless, as discussed above, the Fifth Circuit opinion in this case reveals that its inferences differ from those of the trial court. *See generally id.*

142. *Id.* at 558.

143. *See id.* (stating that any number of explanations could explain the increase in claims beside fraud alone).

144. *Id.*

145. *See id.* (“We further note that the U visa process contains numerous protections against fraud, which should deter claimants from lying in their U visa applications and the EEOC from abetting applications that it knows or suspects to be fraudulent.”). *See also id.* at 558 n.57 (“It is USCIS that has the power to grant each application, and it does so only after a de novo review of all the relevant evidence. . . . USCIS can revoke U visas and initiate deportation proceedings if application fraud is uncovered.”) (citations omitted).

146. *See id.* at 558 n.59 (citing numerous sources to demonstrate workplace abuse in the poultry industry).

147. *Id.* at 559–62.

148. *Id.* at 560.

149. *See id.* at 561 (“[T]he claimants might fear that Koch will violate the order and turn them in anyway. And employers commonly and unlawfully retaliate against irksome workers by reporting or threatening to report them to immigration authorities. A protective order would not necessarily quell claimants’ fear . . .”).

An abuse victim might well be willing to disclose sensitive information to a few sympathetic officials, yet nonetheless fear that his or her abuser might obtain that information and spread it far and wide. . . . [T]heir having submitted U visa applications does not rule out an *in terrorem* effect from further disclosure.¹⁵⁰

The factual disagreement about the impact of disclosure once again comes from a difference in which facts the different judges chose to consider as well as the inferences to be drawn from them. In addition to discovery's potential impact on the complainants, Judge Higginbotham's opinion considered the harm that disclosure would cause to the enforcement efforts of the EEOC, amicus National Labor Relations Board, and law enforcement agencies nationwide, finding that disclosure would deter immigrant victims of abuse, thereby frustrating Congress's purpose in creating the U visa program.¹⁵¹

Putting all of those factual conclusions together (lesser relevance, stronger individual harm, and very strong societal harm that had not been considered by the trial court), the Fifth Circuit vacated the trial level discovery order and remanded for further proceedings.¹⁵²

150. *Id.*

151. *See id.* at 562–63

Allowing U visa discovery from the claimants themselves in this high-profile case will undermine the spirit, if not the letter, of those Congressionally sanctioned assurances and may sow confusion over when and how U visa information may be disclosed, deterring immigrant victims of abuse—many of whom already mistrust the government—from stepping forward and thereby frustrating Congress's intent in enacting the U visa program.

152. In 2018, the EEOC and Koch Foods entered into a \$3.75 million consent decree that also included actions to prevent future violations. *See* Mica Rosenberg & Kristina Cooke, *Allegations of Labor Abuses Dogged Mississippi Plant Years Before Immigration Raids*, REUTERS (Aug. 9, 2019, 10:40 AM), <https://perma.cc/SCV2-98ZL> (last visited Sept. 3, 2019) (on file with the Washington and Lee Law Review). In August of 2019, this Koch Foods plant was one of the targets of a massive immigration sweep by U.S. Customs and Immigration Enforcement. *Id.*

2. *Relevance and Burden: Kuttner v. Zaruba*¹⁵³

This discovery dispute arose out of an employment discrimination case.¹⁵⁴ The difference in inferences here are found in disagreements on appeal between the majority opinion of Judges Sykes and Easterbrook, and the dissent written by Judge Posner.¹⁵⁵

Plaintiff Susan Kuttner worked for the DuPage County Sheriff's office beginning in 1998.¹⁵⁶ In 2010, she was fired based on a claim that she had worn (at least part of) her uniform while trying to collect a loan for her boyfriend.¹⁵⁷ She visited the debtor's home, spoke to his father (the debtor himself was not at home), and left her business card.¹⁵⁸ Kuttner admitted to violating two rules: "conduct unbecoming" an officer and improper wearing of her uniform, and as a result Sheriff Zaruba fired her.¹⁵⁹ Kuttner filed a sex discrimination suit, alleging that male deputies had received less severe punishment for more severe violations on a number of occasions.¹⁶⁰

Kuttner sought to discover the personnel files of thirty named deputies who she believed had violated department policies.¹⁶¹ The trial judge limited that discovery to incidents after January 1, 2006 and to charges involving abuse of authority.¹⁶² Toward the end of the discovery period, the judge also refused to allow Kuttner's lawyer to ask questions during deposition about what deponents

153. 819 F.3d 970 (7th Cir. 2016).

154. *See id.* at 971–72 (describing the facts at the lower court and the gender discrimination allegation).

155. *Compare id.* at 973 (finding that without temporal restriction, discovery of incidents before 2008 would lead to an unjustified fishing expedition by the majority), *with id.* at 977 (Posner, J., dissenting) (arguing that the twenty-one purported incidents alleged by Kuttner were relevant discovery necessary to determining the case on its merits).

156. *Id.* at 972 (majority opinion).

157. *Id.*

158. *Id.*

159. *Id.*

160. *Id.*

161. *Id.* at 973.

162. *See id.* ("Following a hearing, the judge concluded that Kuttner's discovery requests were overly broad and unduly burdensome because they lacked any time limitation and were based on 'an overbroad definition of 'similarity' of misconduct.'").

had heard about violations, limiting the inquiry to the deponent's personal knowledge of infractions.¹⁶³ Operating under those limitations, Kuttner was unable to convince the trial judge that un-fired male deputies' conduct was comparable, and Sheriff Zaruba was granted summary judgment.¹⁶⁴

On appeal, a split Seventh Circuit panel affirmed.¹⁶⁵ Judge Sykes,¹⁶⁶ writing for the majority, held that the district judge had not abused his discretion in denying discovery.¹⁶⁷ The majority found that the passage of time made inferences that comparable male deputies had not been as severely disciplined too attenuated to be relevant.¹⁶⁸ The decision not to include the first seven years of Kuttner's employment "served to hone in on possible comparators who were reasonably likely to have been subject to the same rules, supervisors, and decision making process as Kuttner."¹⁶⁹ Having affirmed the denial of discovery, the majority also affirmed the grant of summary judgment.¹⁷⁰ Finding only infractions involving "improper projection of coercive police authority in service of a personal end" to be sufficiently similar to justify an inference of discrimination, the majority rejected the four post-2006 examples Kuttner brought to light (the discovery order had made evidence of other infractions unavailable).¹⁷¹

163. *Id.* Kuttner's lawyer asked Deputy Tara Campbell "whether she had ever heard or seen *any* deputy violate *any* Sheriff's Office policy or procedure." *Id.*

164. *Id.*

165. *Id.* at 977.

166. *See Diane Sykes*, *BALLOTPEdia*, <https://perma.cc/4X5A-2JG7> (last visited Sept. 3, 2019) (providing general information on Judge Sykes) (on file with the Washington and Lee Law Review). Judge Sykes was on President Donald Trump's list of twenty-five potential Supreme Court nominees to replace Justice Anthony Kennedy on the Supreme Court. *Id.*

167. *See Kuttner v. Zaruba*, 819 F.3d 970, 974 (7th Cir. 2016) ("This standard requires us to affirm unless the judge's ruling lacks a basis in law or fact or clearly appears to be arbitrary.").

168. *See id.* at 973–74 (giving less weight to plaintiff's offer of comparators).

169. *Id.* at 974. *But see id.* at 979 (Posner, J., dissenting) ("[T]he sheriff's lawyer acknowledged that nothing had changed in 2006, and so there was no reason to ignore the earlier misconduct, which was the critical evidence of discriminatory treatment of the plaintiff.").

170. *Id.* at 977 (majority opinion).

171. *See id.* at 976–77

That's what differentiates Kuttner's misconduct from . . . Deputy

Judge Posner,¹⁷² on the other hand, would have found the denied discovery about other employees to be not merely relevant but also so significant that the trial court's action required reversal.¹⁷³ Kuttner listed twenty-one examples in her complaint, and Judge Posner highlighted ten of them, including sexual misdeeds, abuse of power, and domestic violence, some committed while in uniform.¹⁷⁴

In Judge Posner's view, all of these officers' misconduct (none of which resulted in firing) were at least as serious as the plaintiff's actions and, because of inferences of discrimination that could result from the comparison, relevant for purposes of discovery.¹⁷⁵ He wrote, "[i]t is a virtual certainty that the plaintiff was disciplined far more harshly than male counterparts who engaged in far more egregious conduct—far more harshly because she's a woman. The DuPage County Sheriff's Office is or at least was a boy's club."¹⁷⁶

Note, then, the difference in decisions about what the information sought might be able to show. Judge Sykes's majority opinion wanted to see specific parallels in time and circumstances before the trial court could draw an inference of discrimination-based disparate treatment.¹⁷⁷ Under this view of the potential probative value (relevance) of other incidents, the

Morgan's allowing his girlfriend to wear his uniform to a Halloween party or making two personal visits to a female inmate in the jail. In Deputy Morgan's case, there were no allegations of coercion by the use or appearance of legal authority.

172. See *Richard Posner*, BALLOTPEDIA, <https://perma.cc/25FP-5QD3> (last visited Sept. 3, 2019) (providing general information on Judge Posner) (on file with the Washington and Lee Law Review).

173. See *Kuttner*, 819 F.3d at 980 (Posner, J., dissenting) (describing the majority as stymying a "promising" case of sex discrimination through an "arbitrary cut-off date" and the hearsay bar).

174. See *id.* at 978–79 (listing numerous salacious and disturbing details from allegations known to Kuttner). Judge Posner further pointed to evidence that no changes had been made to department policy to render the list of accusations moot. *Id.*

175. See *id.* at 979–80 (arguing that the severity of the allegations necessitated thorough discovery and that the allegations ultimately would have led to a successful claim for Kuttner).

176. *Id.* at 980.

177. See *id.* at 974 (majority opinion) ("[R]estricting the time period . . . served to hone in on possible comparators who were reasonably likely to have been subject to the same rules, supervisors, and decision-making process as Kuttner.").

denial of discovery was supported by the facts.¹⁷⁸ Judge Posner, on the other hand, thought the trial court should have found the information relevant because a wider array of disciplinary decisions could form the basis for an inference of discrimination.¹⁷⁹

3. *Class Certification*: Mielo v. Steak ‘n Shake Operations, Inc.¹⁸⁰

This putative class action against Steak ‘n Shake alleged that the company violated Title III of the Americans with Disabilities Act¹⁸¹ (ADA) because their parking lots were not fully accessible to and independently usable by individuals who use wheelchairs or were otherwise mobility disabled.¹⁸² This time, the trial court reached a plaintiff-friendly result, and the court of appeals reversed.¹⁸³ In the trial court, Magistrate Judge Robert C. Mitchell¹⁸⁴ certified a broadly defined class.¹⁸⁵

178. *See id.* at 976 (“The district judge concluded that Kuttner failed to satisfy the prima facie requirements because she did not identify any similarly situated male employee who received more favorable treatment.”).

179. *See id.* at 980 (Posner, J., dissenting) (“The combination of the arbitrary cut-off date and the discovery hearsay bar was fatal to a promising case of disparate treatment based on gender. And ‘promising’ is an understatement.”).

180. No. 15-180, 2017 WL 1519544 (W.D. Pa. Apr. 27, 2017), *rev’d*, 897 F.3d 467 (3d Cir. 2018).

181. 42 U.S.C. §§ 12181–12189 (2018).

182. *See Mielo*, 2017 WL 1519544, at *1 (stating that two disability rights advocates, both disabled themselves, sued on behalf of all disabled persons who had had difficulty with Steak ‘n Shake parking lots).

183. *Compare id.* at *9 (finding that plaintiffs sufficiently met their burden for certifying a class), *with* Mielo v. Steak ‘n Shake Operations, Inc., 897 F.3d 467, 491 (3d Cir. 2018) (reversing the trial court by finding that plaintiffs’ class did not meet the standards of Fed. R. Civ. P. 23).

184. *See Robert C. Mitchell*, BALLOTPEdia, <https://perma.cc/PY8S-Q8HT> (last visited Sept. 4, 2019) (providing general information on Judge Mitchell) (on file with the Washington and Lee Law Review).

185. *See Mielo*, 2017 WL 1519544, at *7

[T]he following Class is certified: All persons with qualified mobility disabilities who were or will be denied the full and equal enjoyment of goods, services, facilities, privileges, advantages or accommodations of any Steak ‘n Shake restaurant location in the United States on the basis of a disability because such persons encountered accessibility barriers at any Steak ‘n Shake restaurant where Defendant owns, controls and/or operates the parking facilities.

The Third Circuit, in an opinion written by Chief Judge D. Brooks Smith,¹⁸⁶ based its reversal in part on a disagreement about the class certification requirement of numerosity, which in turn was based on the judges' different views of inferences.¹⁸⁷ While there is no exact number that satisfies numerosity, courts generally state that approximately forty class members are enough.¹⁸⁸ Under Third Circuit precedent, class certification "calls for a rigorous analysis in which '[f]actual determinations supporting Rule 23 findings must be made by a preponderance of the evidence.'"¹⁸⁹ So, what was the evidence that did or did not support an inference that the class was so numerous that joinder would be impracticable?

The trial court was persuaded that the numerosity requirement was met by these pieces of information: 1) census data showing that there are between 14.9 million to 20.9 million persons with mobility disabilities who live in the United States;¹⁹⁰ 2) the statement of a Steak 'n Shake executive that "thousands of people with disabilities utilize [Steak 'n Shake] parking lots . . . each year";¹⁹¹ 3) plaintiffs' identification of eight locations in

186. See *Brooks Smith*, BALLOTPEDIA, <https://perma.cc/L249-JD5F> (last visited Sept. 4, 2019) (providing general information on Judge Smith) (on file with the Washington and Lee Law Review).

187. The trial and appellate courts also disagreed about the commonality requirement. *Mielo*, 897 F.3d at 487–90. The district court found the requirement to be met based on the inferences from facts in the record: that Steak 'n Shake applied the same policies on parking lot access nationwide. *Mielo*, 2017 WL 1519544, at *6. Their disagreement, however, turned less on inferences and more on breadth of the district court's definition of the class, which could be read to include all types of "accessibility barriers" despite the definition's reference to parking facilities. *Id.* at *7.

188. See *Stewart v. Abraham*, 275 F.3d 220, 226–27 (3d Cir. 2001) ("[I]f the named plaintiff demonstrates that the potential number of plaintiffs exceeds 40, the first prong of Rule 23(a) has been met.").

189. *Mielo*, 897 F.3d 483–84 (quoting *In re Hydrogen Peroxide Antitrust Litig.*, 552 F.3d 305, 307 (3d Cir. 2009)). Not all circuits require proof by a preponderance of the evidence. See, e.g., *Terrill v. Electrolux Home Prods., Inc.*, 295 F.R.D. 671, 682 (S.D. Ga. 2013) (using an "in fact" standard, rather than a preponderance of the evidence standard).

190. *Mielo*, 2017 WL 1519544, at *5; see also *Mielo*, 897 F.3d at 486 ("Plaintiffs point to census data showing that 'there are between 14.9 million to 20.9 million persons with mobility disabilities who live in the United States'") (quoting Appellee Brief at 41, *Mielo*, 897 F.3d 467 (No. 17-2678)).

191. See Plaintiff's Memorandum in Support of Class Certification at 9, *Mielo*, No. 2:15-cv-00180, 2017 WL 1519544 ("[I]t would 'be fair to say that thousands of

Pennsylvania and Ohio with noncompliant parking lots;¹⁹² 4) the existence of more than 400 Steak ‘n Shake restaurants in the United States potentially subject to the class’s claims;¹⁹³ and 5) the special difficulties that arose because the group of putative class members “include[d] a potentially high number of individuals with mobility disabilities from multiple states.”¹⁹⁴ The plaintiffs urged the court to use its “common sense” to conclude that the numerosity requirement was satisfied, and it did so.¹⁹⁵

The Third Circuit judges reached the opposite conclusion.¹⁹⁶ Mentioning the census data and characterizing the executive statement as a “single off-hand comment . . . speculating [about numbers],” those judges believed that what the plaintiffs saw as common sense was really “mere speculation.”¹⁹⁷ Their opinion states:

Plaintiffs’ first strand of evidence—indicating that there are between 14.9 million to 20.9 million persons with mobility disabilities who live in the United States—suggests that it is *highly likely* that at least 40 of those individuals would have experienced access violations at one of the Steak ‘n Shake locations at issue in this litigation. But although *those odds might be enough for a good wager*, we must be mindful that “[m]ere speculation as to the number of class members—even if such speculation is ‘*a bet worth making*’—cannot support a finding of numerosity.”¹⁹⁸

people with disabilities utilize th[e] parking spaces and visit Steak ‘n Shake stores every year” (quoting Duffner Deposition at 68:19–69:5)).

192. *Mielo v. Steak ‘n Shake Operations, Inc.*, No. 15-180, 2017 WL 1519544, at *1 (W.D. Pa. Apr. 27, 2017).

193. *See id.* at *6 (noting the restaurant chain’s pervasiveness).

194. *See id.* at *5 (describing joinder as particularly difficult given the disabilities that impair plaintiffs’ ability to travel).

195. *Compare* *Mielo v. Steak ‘n Shake Operations, Inc.*, 897 F.3d 467, 486 (3d Cir. 2018) (“Plaintiffs have failed to satisfy their Rule 23(a)(1) burden.”), *with* *Mielo*, 2017 WL 1519544, at *14–15 (coming to the opposite conclusion).

196. *See Mielo*, 897 F.3d at 491 (declining to follow the plaintiff’s “common sense” logic).

197. *Id.* at 484.

198. *Id.* at 486 (emphasis added) (quoting *Hayes v. Wal-Mart Stores, Inc.*, 725 F.3d 349, 357 (3d Cir. 2013)).

Without more direct or specific evidence of the number of disabled individuals who actually patronized a Steak 'n Shake restaurant and experienced an ADA violation there, the judges on the Third Circuit found an inference of numerosity to be unsupported by the evidence.¹⁹⁹ Although it employed an abuse of discretion standard of review,²⁰⁰ the court noted that plaintiffs seeking class certification must prove the facts supporting the Rule 23(a) requirements by a preponderance of the evidence.²⁰¹ The existence of at least forty class members was not, to those judges, more believable than a contrary inference.²⁰²

V. Judges and Heuristics

The hypothetical in Part III and real rulings in Part IV show judges drawing different inferences based on the same underlying facts. This Part will describe the empirical literature showing the ways in which mental shortcuts (“heuristics”), which can vary with individuals’ experiences and attitudes, may explain why inferences can vary so dramatically from judge to judge. Not surprisingly, the literature does not test all heuristics or all types of decisions, but this sample shows that judges’ expertise does not usually protect them from the operation of intuitive thought processes.

A. Introduction to Heuristics: Unconscious Shortcuts

Judges’ generalizations operate through the reasoning mechanisms that human brains use. Like most cognition, judicial

199. The appellate panel’s decision may also have been influenced by its dim view of the merits. *See Mielo*, 897 F.3d at 475 (“Despite the novelty of these interpretations, Steak ‘n Shake has not yet filed a motion to dismiss or motion for summary judgment.”).

200. *Id.* at 474.

201. *See id.* at 484 (“Although this strengthening of the numerosity inquiry has sometimes been criticized, our precedent nonetheless demands that a court ‘make a factual determination, based on the preponderance of the evidence, that Rule 23’s requirements have been met.’” (quoting *Marcus v. BMW of N. Am., L.L.C.*, 687 F.3d 583, 596 (3d Cir. 2012))).

202. *See id.* at 487 (rejecting a finding of numerosity). The Third Circuit also reviewed de novo the district judge’s legal framework, and rejected what it characterized as his “when in doubt, certify the class” approach. *Id.* at 483–84.

fact finding often happens under circumstances of incomplete information and limited processing time.²⁰³ Psychologists use a number of different labels to describe how humans think, but they recognize distinct roles for intuition and deliberation.²⁰⁴ Intuitive processes (System 1) operate quickly, often unconsciously, are relatively effortless, and are susceptible to emotional influences.²⁰⁵ “System 1 is radically insensitive to both the quality and quantity of the information that give rise to impressions and intuitions.”²⁰⁶ Deliberative processes (System 2), on the other hand, move more slowly because they require conscious work and the application of rules.²⁰⁷ The two systems interact, and the intuitive inferences, which are automatically gathered, affect more deliberative decisions in a number of ways.²⁰⁸ Despite the intervention of System 2 thinking, the influence of System 1 rarely ceases.²⁰⁹

System 1 employs various heuristics to help make those quick evaluations.²¹⁰ Although accurate and helpful in many situations, they can also lead to unreliable conclusions.²¹¹ Keep in mind that

203. See James R. Steiner-Dillon, *Epistemic Exceptionalism*, 52 IND. L. REV. 207, 230 (2019) (“The empirical literature on judicial susceptibility to cognitive biases shows that judges’ training and experience leave them better prepared to resist some forms of cognitive error, but on the whole, does not diverge from the cognitive processes of laypersons . . .”).

204. See *Blinking*, *supra* note 37, at 6–9 (discussing the judicial decision-making process). As Guthrie notes, “[t]he convergence of psychologists on the notion that two separate systems of reasoning coexist in the human brain is remarkable.” *Id.* at 9 n.49; see also KAHNEMAN, *supra* note 9, at 4 (discussing the mental process of impression, intuition, and decision).

205. See *Blinking*, *supra* note 37, at 7 (describing the qualities of System 1 intuitive processes).

206. KAHNEMAN, *supra* note 9, at 86.

207. See *Blinking*, *supra* note 37, at 7–8 (describing System 2 deliberate processes).

208. See *id.* at 9 (detailing how System 1 processes and reacts to situations as they arise, and System 2 analyzes the quality of decision making made by intuition).

209. KAHNEMAN, *supra* note 9, at 85–86 (discussing how System 1 and System 2 interact even when systematically approaching evidence through System 2).

210. See *Blinking*, *supra* note 37, at 7 (describing System 1 as “heuristic-based” (quoting KEITH E. STANOVICH & RICHARD F. WEST, *Individual Differences in Reasoning: Implications for the Rationality Debate?*, in HEURISTICS AND BIASES: THE PSYCHOLOGY OF INTUITIVE JUDGMENT 421, 436–38 (2002))).

211. See, e.g., Amos Tversky & Daniel Kahneman, *Judgment Under*

System 1 heuristics operate automatically—these mental processes are intuitive and powerful, affecting thought in a way that is hidden from the conscious, deliberate System 2.²¹² Its efficient operation also means that it does not keep track of discarded possibilities—System 1 loves coherence and makes available a collection of information that fits together and is compatible with the person’s overall worldview.²¹³

This subsection will highlight some of the heuristics that are relevant to judicial inferences and whose impact on judges have been studied.

Availability. We make judgments about how likely something is based on how easily examples come to mind—how “available” they are.²¹⁴ That could be based on how many examples one has encountered, and to that extent it is related to frequency, which is related to probability. But it is also affected by other things that make something “available” (i.e. memorable): things like dramatic content, personal impact, and visual stimulation.²¹⁵ The availability heuristic can make people think sharks kill more people than ponies, or that they are more likely to die from a terrorist attack than from heart disease. The operation of the availability heuristic for any particular individual will be influenced by that person’s experiences, since they impact what information is “available” to System 1’s quick search.²¹⁶

Representativeness. The “representativeness” heuristic causes people to estimate probability using the similarity of one thing to the person’s mental image of the corresponding stereotype.²¹⁷

Uncertainty: Heuristics and Biases, 185 SCIENCE 1124, 1124–30 (1974) [hereinafter *Uncertainty*] (discussing biases resulting from use of representativeness heuristic, availability heuristic, and anchoring heuristic).

212. See *supra* notes 207–210 and accompanying text.

213. See KAHNEMAN, *supra* note 9, at 85 (“The measure of success for System 1 is the coherence of the story it manages to create.”).

214. See *id.* at 129 (“We defined the availability heuristic as the process of judging frequency by ‘the ease with which instances come to mind.’”).

215. See *id.* at 130 (using examples such as plane crashes to demonstrate events and experiences that would bias a person to believe such events are more common than in actuality).

216. See *id.* (discussing “personal experiences, pictures, and vivid examples” as examples of the availability heuristic).

217. See *id.* at 149 (describing the representativeness heuristic as ignoring statistics and the veracity of a claim in favor of a bias that connects stereotypes with a given outcome); *Uncertainty*, *supra* note 211, at 1124–25 (detailing

When people rely on representativeness to make judgments, they are likely to judge wrongly because the fact that something is more representative does not actually make it more likely. The representativeness heuristic can lead “to serious errors, because similarity, or representativeness, is not influenced by several factors that should affect judgments of probability.”²¹⁸ For example, it is insensitive to the accuracy (or lack thereof) of the stereotype.²¹⁹ And stereotypes are influenced by the person’s own experiences and understanding of the way the world works.²²⁰

Confirmation. This heuristic is defined as “the seeking or interpreting of evidence in ways that are partial to existing beliefs, expectations, or a hypothesis in hand.”²²¹ It operates as part of System 1 thinking.²²² Confirmation bias leads people to find and interpret information in a way that supports preexisting hypotheses and to avoid information or interpretations that support alternate possibilities.²²³ It can also take the form of giving greater weight to information supporting a position one has taken or remembering that supporting information more readily than information that disconfirms the belief.²²⁴ This is particularly common “in situations that are inherently complex and ambiguous”—those that are “characterized by interactions among numerous variables and in which the cause and effect

representativeness heuristics).

218. *Uncertainty*, *supra* note 211, at 1124.

219. *See id.* at 1124–25 (describing the “insensitivity to prior probability of outcomes,” sample size, and predictability).

220. *See* KAHNEMAN, *supra* note 9, at 146–49 (discussing how stereotypes from one’s own experiences influence a person toward certain beliefs and outcomes).

221. Raymond S. Nickerson, *Confirmation Bias: A Ubiquitous Phenomenon in Many Guises*, 2 REV. GEN. PSYCHOL. 175, 175 (1998).

222. *See supra* notes 205–213 and accompanying text (describing System 1 cognition).

223. *See* Nickerson, *supra* note 221, at 187 (“People are more likely to question information that conflicts with preexisting beliefs than information that is consistent with them and are more likely to see ambiguous information to be confirming preexisting beliefs than disconfirming of them.”).

224. *See id.* at 191 (providing political examples where confirmation bias involves “intentional selectivity in the use of information for the conscious purpose of supporting a position”).

relationships are obscure”²²⁵ Like the availability heuristic, the operation of any particular person’s confirmation bias very much turns on that person’s experience and view of “common sense.”²²⁶

Affect. The affect heuristic leads people to decisions that are consistent with their emotions.²²⁷ “Do I like it? Do I hate it? How strongly do I feel about it?”²²⁸

Emotions influence how people perceive others, what they remember about others, and how they process information about others. Emotions guide “people’s attitudes, beliefs, and inferential strategies” so that they see people they like as having positive qualities and people they do not like as possessing negative ones. Consequently, even deliberative reasoning can be influenced by intuitive, emotional reactions.²²⁹

System 2 is particularly ineffective in overcoming the affect heuristic.²³⁰

Anchoring. When people estimate numerical values, they often rely on an initial value available to them and adjust from there—hence the anchor metaphor.²³¹ This can be rational and helpful.²³² But it turns out that the heuristic is at play even when

225. *Id.* at 191–92.

226. *See id.* at 175 (defining confirmation bias as interpreting evidence partial to one’s “existing beliefs” informed by one’s experience and view of what constitutes “common sense”).

227. *See* KAHNEMAN, *supra* note 9, at 139 (“The affect heuristic is an instance of substitution, in which the answer to an easy question (How do I feel about it?) serves as an answer to a much harder question (What do I think about it?).”).

228. *Id.*

229. Andrew J. Wistrich et al., *Heart Versus Head: Do Judges Follow the Law or Follow Their Feelings?*, 93 TEX. L. REV. 855, 869 (2015) [hereinafter *Heart Versus Head*] (footnotes omitted) (quoting Ziva Kunda, *The Case for Motivated Reasoning*, 108 PSYCHOL. BULL. 480, 493 (1990)).

230. *See* KAHNEMAN, *supra* note 9, at 103–04 (“In the context of attitudes . . . System 2 is more of an apologist for the emotions of System 1 than a critic of those emotions—an endorser rather than an enforcer.”).

231. *See Uncertainty*, *supra* note 211, at 1128–30 (“[D]ifferent starting points yield different estimates, which are biased toward the initial values. We call this phenomenon anchoring.”).

232. *See id.* at 1129 (noting that anchoring reduces mental effort but often leads to errors).

it makes no sense at all, such as when the number is unrelated to the number to be estimated.²³³

Another form of anchoring is not about numbers.²³⁴ Everyday social interactions (as well as judicial decisions) require humans to infer the thoughts and feelings of other people. In order to figure this out, people use themselves as a kind of “anchor” to estimate the intent and emotions of others and adjust from there depending on how similar or dissimilar from themselves the other person seems to be.²³⁵ “For example, to infer another’s mental state, one might first mentally imagine experiencing that person’s situation, read off the evoked mental state, and then assume that the other person would feel similarly.”²³⁶ This process, sometimes called “self-referencing,” works very much like anchoring with numbers.²³⁷

When people use themselves as an anchor point, if the other person’s experiences are different, the inference will be unreliable unless it is adjusted to account for dissimilarities.²³⁸ (The adjustment may use System 2 deliberative thinking.)²³⁹ This can work relatively well so long as the “other” is fairly similar and sufficient adjustments are made. However, one study found that when the “other” is not perceived as similar, the people doing the

233. See *Judicial Mind*, *supra* note 26, at 788 (describing an experiment in which providing participants with a random number affected their estimates of the percentage of the United Nations membership made up of African countries).

234. See generally Diana I. Tamir & Jason P. Mitchell, *Anchoring and Adjustment During Social Inferences*, 142 J. EXPERIMENTAL PSYCHOL.: GEN. 151 (2013) [hereinafter *Anchoring and Adjustment*].

235. See *id.* (“Although humans cannot ever directly access the goings-on of others’ minds, we can gain insight into the ways that others think or feel by simulating their experience in our own mind.”).

236. *Id.*

237. See Hsiao H. D’Ailly, Harry G. Murray & Alice Corkill, *Cognitive Effects of Self-Referencing*, 20 CONT. EDUC. PSYCHOL. 88, 88 (1995) (giving an overview of self-referencing).

238. See *id.* (“[A] perceiver must have experiences that are relevant to those of the social inference target. If this is not the case, a perceiver’s self-knowledge likely will not apply to the target and so cannot provide an informative starting point for understanding the target’s experience.”).

239. See KAHNEMAN, *supra* note 9, at 120 (“There is a form of anchoring that occurs in a deliberate process of adjustment, an operation of System 2.”).

inferring do not use self-referencing as an anchor.²⁴⁰ Instead, they fall back on stereotypes.²⁴¹

Hindsight. “[O]nce people know the outcome of an event, they tend to overestimate what could have been anticipated in foresight.”²⁴² Experimenters have detected hindsight bias in a wide array of situations, including “general-knowledge questions, in political or business developments, in predictions of elections or sport results, in medical diagnoses or in personality assessment,” and more.²⁴³

Egocentric heuristics and biases. In addition to self-referencing, a cluster of self-centered biases can also affect judicial decisions. One is “egocentric bias,” a tendency to have a higher opinion of oneself than reality would support.²⁴⁴ This can make people overconfident in the accuracy of their opinions.²⁴⁵ A second is the “false consensus effect,” in which people overestimate the degree to which others agree with their beliefs, which also creates overconfidence.²⁴⁶ Those biases are related to “naïve realism,” the human tendency to believe that we see the world around us objectively, and that people who disagree with us must be uninformed, irrational, or biased.²⁴⁷ One consequence of naïve

240. See *Anchoring and Adjustment*, *supra* note 234, at 160 (noting the limits of self-referencing).

241. For studies confirming this phenomenon in legal settings, see Richard L. Wiener et al., *Perceptions of Sexual Harassment: The Effects of Gender, Legal Standard, and Ambivalent Sexism*, 21 L. & HUM. BEHAV. 71 (1997); Jason A. Cantone & Richard L. Weiner, *Religion at Work: Evaluating Hostile Work Environment Religious Discrimination Claims*, 23 PSYCHOL., PUB. POL’Y & L. 351 (2017).

242. IRESEARCHNET, <https://perma.cc/P9RC-5WA5> (last visited Oct. 29, 2018) (on file with the Washington and Lee Law Review).

243. *Id.*

244. DANIEL L. SCHACTER ET AL., PSYCHOLOGY 254 (2d. ed. 2011).

245. See, e.g., Anna Sundström, *Self-Assessment of Driving Skill: A Review from a Measurement Perspective*, 11 TRANSP. RES. PART F: TRAFFIC PSYCHOL. & BEHAV. 1, 1 (2008) (explaining that a majority of respondents rate themselves above average in driving skill and safety).

246. See Lee Ross et al., *The “False Consensus Effect”: An Egocentric Bias in Social Perception and Attribution Processes*, 13 J. EXPERIMENTAL SOC. PSYCHOL. 279, 297 (1977) (explaining that such biases “both foster and justify the actor’s feelings that his own behavioral choices are appropriate”).

247. Lee Ross & Andrew Ward, *Naïve Realism in Everyday Life: Implications for Social Conflict and Misunderstanding*, in VALUES AND KNOWLEDGE 103, 110–11 (T. Brown et al. eds., 1996).

realism is referred to as the “bias blind spot,” which is the ability to recognize cognitive and motivational biases in others while failing to recognize the impact of bias on the self.²⁴⁸ Sadly, when people form beliefs based on heuristics they may well be both confident that the decisions are correct and unaware of the impact of those heuristics on the decisions.²⁴⁹

B. Heuristics Affect Judicial Decisions

It would be tempting to believe that judges, because of their high intelligence, extensive education, and professional experience would not be subject to heuristic-based reasoning flaws. Sadly, this is not true.²⁵⁰ Some of the evidence for that is circumstantial research on other types of professional experts—including doctors, real estate agents, psychologists, options traders, military leaders, and auditors—showing that they rely on heuristic biases.²⁵¹ Even more tellingly, empirical studies of actual judges show that heuristics influence judicial tasks.²⁵²

Many of the contemporary studies of trial court decision-making have been done by the trio of Professors Jeff Rachlinski, Chris Guthrie, and U.S. Magistrate Judge Andrew Wistrich (hereinafter RGW).²⁵³ Overall, those studies of hundreds

248. Emily Pronin et al., *The Bias Blind Spot: Perceptions of Bias in Self Versus Others*, 28 PERSONALITY & SOC. PSYCHOL. BULL. 369, 374 (2002).

249. See *id.* at 378 (concluding that knowledge of biases “neither prevents one from succumbing nor makes one aware of having done so”).

250. See *Blinking*, *supra* note 37, at 31 (finding that “heuristic-based decision making” led to erroneous decisions); *Judicial Mind*, *supra* note 26, at 829 (asserting that judges make mistakes based on “cognitive illusions”).

251. See *Judicial Mind*, *supra* note 26, at 782–83 (referencing empirical studies on many types of professionals); Jeffrey J. Rachlinski et al., *Inside the Bankruptcy Judge’s Mind*, 86 B.U. L. REV. 1227, 1229–30 (2006) [hereinafter *Bankruptcy Judge’s Mind*] (identifying research focused on certain experts).

252. See *Bankruptcy Judge’s Mind*, *supra* note 251, at 1230 (referencing a study suggesting that bankruptcy judges “are susceptible to the ‘self-serving’ or ‘egocentric’ bias when making judgments”).

253. See *Blinking*, *supra* note 37, at 3 (noting the impact of heuristics); *Judicial Mind*, *supra* note 26, at 780 (demonstrating that judges’ reliance on heuristics “can create *cognitive illusions* that produce erroneous judgments”); Jeffrey J. Rachlinski et al., *Does Unconscious Racial Bias Affect Trial Judges?*, 84 NOTRE DAME L. REV. 1195, 1197 (2009) [hereinafter *Unconscious Racial Bias*]

of federal and state judges show that “judges rely on heuristics that can lead to systematically erroneous judgments.”²⁵⁴ Administering a “cognitive reflection test” to judges showed that “judges tended to favor intuitive rather than deliberative faculties.”²⁵⁵ That test, however, asks questions unrelated to judging.²⁵⁶ Judicial task case studies also showed that judges tend to be influenced by heuristics such as anchoring, hindsight bias, and egocentric bias.²⁵⁷ Further, tests showed that judges have difficulty deliberately disregarding inadmissible evidence.²⁵⁸

To make this more concrete, consider some examples. First, in order to test whether judges are affected by anchoring, one RGW study presented participating judges with a hypothetical lawsuit arising out of an automobile accident.²⁵⁹ The control group judges were given the facts and asked “[h]ow much would you award the plaintiff in compensatory damages?”²⁶⁰ Judges in the anchor group were given identical information, but they were also told of a motion to dismiss for lack of subject matter jurisdiction arguing that the amount in controversy was lower than the required \$75,000.01.²⁶¹ Judges were asked to rule on the motion and then, if they did not dismiss the case, asked the same question about compensatory damages.²⁶² The judges’ responses showed that the

(reporting results of “the first study of implicit racial bias among judges”); *Bankruptcy Judge’s Mind*, *supra* note 251, at 1230 (exploring whether specialization influences the impact of heuristics on judges); Andrew J. Wistrich et al., *Can Judges Ignore Inadmissible Information? The Difficulty of Deliberately Disregarding*, 53 U. PA. L. REV. 1251, 1258 (2005) [hereinafter *Can Judges Ignore Inadmissible Information*] (testing the ability of trial judges “to disregard inadmissible information”); *Heart Versus Head*, *supra* note 229, at 862 (studying whether judges’ feelings about litigants affect their decision making).

254. *Judicial Mind*, *supra* note 26, at 784.

255. *Blinking*, *supra* note 37, at 17.

256. *See id.* at 10 (describing the Cognitive Reflection Test).

257. *Id.* at 19–27.

258. *See Can Judges Ignore Inadmissible Information*, *supra* note 253, at 1264–70 (noting that even inadmissible evidence that is deliberately avoided can indirectly influence judgment).

259. *Blinking*, *supra* note 37, at 20.

260. *Id.* at 21.

261. *Id.*

262. Because the plaintiff as described clearly had incurred damages exceeding \$75,000, the researchers regarded the motion to dismiss as meritless, and only two out of 116 judges would have granted it. *Id.*

\$75,000 served as an anchor: judges who had not ruled on the motion (i.e. no anchor) awarded the plaintiff an average of \$1,249,000, but judges who had been exposed to the motion awarded the plaintiff an average of only \$882,000.²⁶³ The difference was statistically significant; the average award of the anchor group was thirty percent lower.²⁶⁴ “The anchor triggered intuitive, automatic processing that the judges were unable to override.”²⁶⁵ The judges’ inferences about damages were influenced by the anchor.²⁶⁶

A test of hindsight bias informed judges about the outcome on appeal of a case involving Rule 11 sanctions.²⁶⁷ The judges were all given the same fact pattern, except that they were given one of three different appellate outcomes.²⁶⁸ They were then asked, in light of the fact pattern and all three possible outcomes, which of the outcomes had been the most likely.²⁶⁹ In each case, judges found the outcome they had originally been given to be significantly more likely.²⁷⁰ “Learning an outcome clearly influenced the judges’ ex post assessments of the ex ante likelihood of various possible outcomes. The intuitive notion that the past was predictable prevailed.”²⁷¹

263. See *id.* (showing the power of anchoring).

264. See *Judicial Mind*, *supra* note 26, at 791 (displaying the statistical proof of the effect of anchoring).

265. *Blinking*, *supra* note 37, at 21.

266. In another hypothetical, judges were either told of a \$10 million settlement demand or just told that the plaintiff “was intent upon collecting a significant monetary payment.” *Can Judges Ignore Inadmissible Information*, *supra* note 253, at 1288 n.150. The \$10 million acted as a high anchor, resulting in a significant increase in the judges’ damage awards despite otherwise identical fact patterns. *Id.* at 1288–92.

267. See *Blinking*, *supra* note 37, at 24–25 (outlining facts in a hypothetical in which the district court found “that the plaintiff knew his claims were not actionable because he had made similar claims several years earlier in a case that had been dismissed by the trial court”).

268. See *id.* at 25 (“Each judge randomly received one of three conditions: ‘Affirmed,’ ‘Vacated,’ or ‘Lesser Sanction.’”).

269. *Id.*

270. See *id.* at 25–26 (finding that a large percentage of judges in each group asserted that they would have predicted the outcome).

271. *Id.* at 26. However, in another test of hindsight bias the judges were not affected by learning about the fruits of an arguably illegal search. See *infra* note

In an RGW study designed to test judges' ability to disregard inadmissible evidence, both control group and "suppression" judges were given information about available evidence in a contract dispute between Jones, a freelance consultant, and SmithFilms, a movie studio.²⁷² The hypothetical lawsuit turned on whether Smith, the studio owner, had offered Jones "producer credit."²⁷³ Jones claimed that he had; the studio denied it.²⁷⁴ The only writing in the case was a short letter specifying that Jones would receive "other consideration as agreed upon by the parties during the pre-signing breakfast."²⁷⁵ To corroborate his own testimony, Jones offered the testimony of a waitress who said she overheard a mention of producer credit.²⁷⁶ Smith was in a coma (!), so SmithFilms could offer only testimony that SmithFilms did not generally offer producer credit.²⁷⁷

Both groups of judges were given this description and asked whether they would rule for Jones or SmithFilms.²⁷⁸ But the judges assigned to the "suppression" group first had to rule on the admissibility of an audiotape of a post-negotiation conversation between Jones and his attorney, with Jones objecting that the tape was protected by the attorney-client privilege (and under the facts of the hypothetical, that was the more likely conclusion).²⁷⁹ On the tape, Jones admits that he had not actually asked for the producer credit, and there was no such agreement.²⁸⁰ Although the judges otherwise had identical information, the judges' awareness of the plaintiff's admission significantly decreased his win rate.²⁸¹ "In the

310 and accompanying text.

272. *Can Judges Ignore Inadmissible Information*, *supra* note 253, at 1294–95.

273. *Id.* at 1294.

274. *Id.* at 1295.

275. *Id.*

276. *Id.* at 1335.

277. *See id.* at 1295 (describing testimony that served as the basis for the hypothetical).

278. *Id.* at 1296.

279. *See id.* at 1295 (framing the issue as whether Jones was seeking legal advice or business advice).

280. *See id.* ("Jones: I really needed this deal and I was afraid that asking for producer credit might be a turn-off, so I got nervous and did not ask for it.").

281. *See id.* at 1296 (noting the effect of a slight change in fact on the hypothetical plaintiff's win rate).

control condition [no tape], 55.6% (25 out of 45) of the judges found for the plaintiff. . . . Among those who ruled that the audiotape was privileged, only 29.2% (7 out of 24) found for the plaintiff.”²⁸² Even judges who had ruled the tape out of bounds, then, let the knowledge they gained from the tape influence the inferences on which they based their judgments.²⁸³

The RGW researchers also examined whether judges were subject to the affect heuristic, using a number of hypotheticals on hundreds of judges over a period of years.²⁸⁴ While judges no doubt strive to avoid the influence of emotions or non-merits values on their decisions, the results again show the impact of intuitive processes.²⁸⁵ For example, the researchers gave a problem involving illegal immigration to 508 judges.²⁸⁶ The judges were told that they were presiding over the prosecution of an immigrant illegally in the country.²⁸⁷ The defendant was a Peruvian citizen who pasted a forged U.S. entry visa into his legitimate Peruvian passport.²⁸⁸ The judges were told that the defendant was charged with “forging an identification card,”²⁸⁹ and given the language of the relevant statute. The statute’s application to these facts was open to interpretation.²⁹⁰

The judges were divided into two groups.²⁹¹ One was told that the defendant was a killer who had been hired by a drug cartel to sneak into the U.S. to “track down someone who had stolen drug

282. *Id.*

283. *See id.* at 1297 (recognizing that the evidence, even while inadmissible, influenced the judges).

284. *See Heart Versus Head*, *supra* note 229, at 874 (noting that data was collected from 2008 to 2013 using a written questionnaire with three to five hypothetical cases).

285. *See id.* at 911 (providing statistical results).

286. *See id.* at 877 (including 100 federal trial judges from a variety of districts, eighty state and federal appellate judges, eighty-six newly appointed New York trial judges, and 242 Ohio judges).

287. *Id.*

288. *Id.*

289. *Id.*

290. *See id.* (discussing the issue of “whether pasting a fake visa onto a genuine passport constituted forgery of an identification document”).

291. *Id.*

proceeds”²⁹² The other group was told the defendant was a father who had tried to sneak into the U.S. to earn money so he could pay for a liver transplant to save the life of his critically ill, nine-year-old daughter.²⁹³ There was, therefore, a huge difference in the sympathy one would likely feel for the defendant—but not a difference relevant to whether pasting a forged visa into a legitimate passport constituted forging an identification card.²⁹⁴

Did it affect the judges’ decisions? Yes, and pretty dramatically.²⁹⁵ “Among the judges who reviewed the father version, [only] 44% (102 out of 234) ruled that the act constituted forgery, as compared to 60% (154 out of 257) out of the judges who reviewed the killer version.”²⁹⁶

C. When Does Professional Expertise Intervene?

Although they have not tested all possible heuristics, it seems clear from the RGW studies that judges as a group unwittingly employ intuitive thinking on a regular basis.²⁹⁷ But their research also shows that occasionally, professional training and habits of mind allow judges to override the misleading influence of System 1.²⁹⁸ This could happen in a couple of ways.

First, under some circumstances experts can develop such extensive, specific knowledge and skills that a mental operation that would normally be a System 2 (deliberative) task becomes automatic and intuitive.²⁹⁹ Chess grandmasters, for example,

292. *Id.*

293. *Id.* at 877–78.

294. *See id.* at 878 (detailing the effects of including facts about a hypothetical defendants’ sick child).

295. For an overview of the study results, see *id.*

296. *Id.* For another study showing a powerful unacknowledged influence of defendants’ characteristics on judicial reasoning, see Holger Spamann & Lars Kohn, *Justice is Less Blind, and Less Legalistic than We Thought: Evidence from an Experiment with Real Judges*, 45 J. LEGAL STUD. 255, 255 (2016) (finding that defendant characteristics have a strong effect).

297. *See Heart Versus Head*, *supra* note 229, at 861 (“The belief that judges cannot be as dispassionate as their roles demand is widespread.”).

298. *See Blinking*, *supra* note 37, at 30 (“[R]ecent research suggests that some experts use intuitive thinking successfully.”).

299. *See* ROBIN HOGARTH, EDUCATING INTUITION 204 (2001) (“Many processes or reactions to stimuli that once relied heavily on the deliberate system can over

develop such a deep sense of the game that they intuitively recognize patterns.³⁰⁰ However, it is unlikely that judges often acquire a level of internalized reflection that would protect them from the operation of heuristics.³⁰¹ The conditions under which judges work (complex, varying decisions and limited feedback) are a serious impediment to developing the kind of deep but automatic pattern recognition that helps chess masters.³⁰²

Second, judges' training and practice in legal reasoning seems to allow System 2 deliberative thinking to overcome the influence of heuristics when the decision in question is about law application and is governed by a web of quite specific rules (as compared to discretionary decisions, general standards, or balancing tests).³⁰³ In one RGW test, designed to see if judges tend to err based on the hindsight heuristic, all of the judges were given the same core set of facts:

A police officer was on patrol outside a rock concert. The officer saw a well-dressed, nervous-looking man exit a BMW and fiddle with something in the trunk before he entered the concert. A half hour later, the officer noticed that one of the BMW's windows was down. Concerned that someone might burglarize the car, he approached to close the window. Upon reaching the car, he smelled something that he believed, based on a demonstration at a training session several years earlier, to be burnt methamphetamine. He looked inside the car and didn't

time become automatic and thus bypass consciousness. This migration from the deliberate system to the tacit [system] is an important characteristic of the phenomenon of expertise.”).

300. See Daniel Kahneman & Shane Frederick, *Representativeness Revisited: Attribute Substitution in Intuitive Judgment*, in *HEURISTICS AND BIASES: THE PSYCHOLOGY OF INTUITIVE JUDGMENT* 51 (Thomas Gilovich, Dale Griffin & Daniel Kahneman eds., 2002) (“A demonstration of the intelligence of System [1] is the ability of chess masters to perceive the strength or weakness of chess positions instantly.”).

301. See *Blinking*, *supra* note 37, at 32 (noting that the appeals process most judges face does not allow the development of an analytical process).

302. See *id.* (“[J]udges operate in an environment that does not allow them to perfect their intuitive decision-making processes.”).

303. See *id.* at 28 (“[T]his work suggests that judges are inclined, at least when presented with certain stimuli, to make intuitive decisions, but that they have the capacity to override intuition with deliberative thinking.”).

see any drugs, but he did notice some Visine, a local map, and a couple of empty beer cans.³⁰⁴

Participating judges were divided into two groups. The “foresight” judges were asked to say, based on these facts, whether this information supplied sufficient probable cause that they would issue a telephonic search warrant when called by the officer.³⁰⁵ The “hindsight” judges, however, were told that the police officer “conducted a warrantless search of the trunk and found ten pounds of methamphetamine, other drug paraphernalia, and a recently fired gun that had been used earlier in the day to murder a drug dealer across town.”³⁰⁶ Judges in that group were asked to rule on a motion to suppress the evidence found in that warrantless search, because the officer lacked probable cause.³⁰⁷

If the hindsight bias was at work, one would expect judges who were aware of the contents of the trunk to rule in favor of the police at a higher rate, even though in both cases the legal issue was probable cause to search the car.³⁰⁸ But that’s not what happened: the responses of the foresight and hindsight groups were extremely similar.³⁰⁹ What explains this unusual result? One possibility is that the judges used System 2 deliberation, applying the legal analysis demanded by the Fourth Amendment, to rule without regard to what was found in the warrantless search.³¹⁰ This could be true because there is a large array of rules to apply and because “the intricacy of this area of law signals to the judge that intuition might be inconsistent with law and therefore they will need to

304. *Id.* at 26–27.

305. *Id.*

306. *Id.*

307. *Id.*

308. *See id.* at 28 (underscoring the basic premises of the study).

309. *Id.* at 27.

310. *See id.* at 28 (characterizing Fourth Amendment jurisprudence as “highly intricate” and “rule-bound”). In contrast, a different test of hindsight bias showed that judges were influenced by knowledge of the outcome of an appeal when asked to identify the most likely ex ante ruling on a Rule 11 motion for sanctions—a decision granting the judge far wider discretion, governed by more general standards. *See Blinking*, *supra* note 37, at 25–26. Numerous other studies have shown judges to be influenced by hindsight bias in other contexts. *See, e.g., Can Judges Ignore Inadmissible Information*, *supra* note 253, at 1316 (“The vast literature on the hindsight bias includes virtually no studies that fail to uncover evidence of the hindsight bias in ex post assessments of ex ante probabilities.”).

think through the rules created by the appellate courts carefully.”³¹¹ This explanation is consistent with a study (using undergraduates and law students as subjects) finding that legal training reduced bias from stereotyping when the subjects had been taught legal *rules* that applied to the cases they were given, but did not reduce bias when the training covered more general *standards*.³¹²

It is important to note, though, that this experiment was based on stipulated facts and is about application of well-established law to those facts. It does not speak to the inference drawing/fact finding process and whether it would be influenced by hindsight bias.³¹³ But the reality of most pretrial disputes may well be that the facts *are not* agreed. For example, in a motion to suppress in a criminal case such as this one, if the question is whether to believe an officer’s testimony that a defendant made a furtive motion or consented to a search, judges’ decisions about whom to believe could well be influenced by what they know about the fruits of the search.³¹⁴

Another possibility is that, given the frequency of probable cause hearings, judges develop rule-of-thumb heuristics applicable to common fact patterns in order to guide their rulings.³¹⁵ They might, for example, refuse to find probable cause based only on vague assertions that the police smelled drugs or refuse to find probable cause for most car-trunk searches.³¹⁶ In either case, this study provides evidence that some circumstances—particularly

311. *Blinking*, *supra* note 37, at 27.

312. See Erik J. Girvan, *Wise Restraints?: Learning Legal Rules, Not Standards, Reduces the Effects of Stereotypes in Legal Decision-Making*, 22 PSYCHOL., PUB. POL’Y, & L. 31, 41 (2016) (finding stereotypic warmth when participants had no training and decided cases based on legal standards but no stereotypic warmth when participants did have legal training and decided cases in which legal rules applied).

313. See *id.* (explaining that the facts were given to participants rather than derived through a separate fact-finding process).

314. I am indebted to Jeremy Fogel, former U.S. District Judge, former Director of the Federal Judicial Center, and current Executive Director of the Berkeley Judicial Institute, for this point and example.

315. See *Can Judges Ignore Inadmissible Information*, *supra* note 253, at 1318 (noting the usefulness of these rule-of-thumb heuristics).

316. See *id.* (providing examples of rule-of-thumb heuristics).

well-developed facts and intricate legal rules—can cue judges to use their professional analytical skills to trump the automatic heuristic response.³¹⁷

D. Implicit Bias

This subpart looks at heuristics' more insidious potential effects; they are the gateway to the operation of implicit biases based on factors such as race, gender, national origin, age, and religion. "Implicit biases are discriminatory biases based on implicit attitudes or implicit stereotypes."³¹⁸ We say that these attitudes and stereotypes are implicit when the person holding them is not intentional or even conscious of the bias.³¹⁹ They can be especially difficult for the law to deal with, because implicit biases may be different from a person's conscious beliefs but nevertheless affect the person's actions.³²⁰

One very common way to try to measure degrees of implicit associations between stereotypes and individual images is the "Implicit Association Test" (IAT), which is administered by Harvard University,³²¹ and has been taken by millions of people over the years.³²² The IAT is a sorting test in which the subject is

317. See Girvan, *supra* note 312, at 41 (noting that judges are not always at the mercy of their heuristic responses).

318. Anthony G. Greenwald & Linda Hamilton Krieger, *Implicit Bias: Scientific Foundations*, 94 CALIF. L. REV. 945, 951 (2006). In social psychology, an "attitude" is "an evaluative disposition—that is, the tendency to like or dislike, or to act favorably or unfavorably toward, someone or something." *Id.* at 948. A "stereotype" is "a mental association between a social group or category and a trait." *Id.* at 949. For example, a stereotype might be an association between old people and driving skill, and the attitude (unfavorable) would be that older people are poor drivers.

319. See *id.* at 946 ("[T]he science of implicit cognition suggests that actors do not always have conscious, internal control over the processes of social perception, impression formation, and judgment that motivate their actions.").

320. See *id.* at 951 (describing the effect of implicit bias).

321. See *Project Implicit*, HARV. UNIV. (2011), <https://implicit.harvard.edu/implicit/> (last visited Dec. 11, 2019) (providing an online forum for users to discover their implicit associations) (on file with the Washington and Lee Law Review).

322. For a fuller discussion of the IAT, see Anthony G. Greenwald et al., *Measuring Individual Differences in Implicit Cognition: The Implicit Association Test*, 74 J. PERSONALITY & SOC. PSYCHOL. 1464, 1464 (1998).

asked to match categories and traits that are often associated with implicit biases—such as Male/Female sorted with Career/Family.³²³ It tends to take longer to tap the computer key that matches the categories with traits that are contrary to stereotypes.³²⁴ For example, it may take longer to match words or images associated with Female to those associated with Career than to those related to Family. Those time differences generate a score that reflects how strong an association the IAT-taker has between the category and the trait.³²⁵ A person taking the test described, for example, might learn that the test has shown them to have a mild association between Female and Family. The best known IAT focuses on race,³²⁶ but there are also tests looking at associations based on age, religion, political party, sexual orientation, mental illness, weight, and more.³²⁷

The collective results of years of IAT tests are worrying:

In the case of race, scientists have found that most European Americans who have taken the test are faster at pairing a white face with a good word (e.g., honest) and a black face with a bad word (e.g., violent) than the other way around. For African-Americans, approximately a third show a preference for African-Americans, a third show a preference for European Americans, and a third show no preference.³²⁸

Showing an unconscious association is not the same as showing that people act on that association, and research on the latter is ongoing.³²⁹ There is, however, evidence that implicit associations can affect decisions, including hiring,³³⁰ medical

323. *Id.*

324. *Id.* at 1466.

325. *See id.* at 1465 (illustrating the association effects of the IAT using several examples).

326. *See* Greenwald & Krieger, *supra* note 318, at 952 (providing a detailed description of the tasks involved in this version of the IAT).

327. *Id.* at 949.

328. Pamela M. Casey et al., *Addressing Implicit Bias in the Courts*, 49 CT. REV.: J. AM. JUDGES ASS'N 64, 64–65 (2013).

329. *See, e.g.*, Oswald et al., *Predicting Ethnic and Racial Discrimination: A Meta-Analysis of IAT Criterion Studies*, 105 J. PERSONALITY & SOC. PSYCHOL. 171, 172–73 (2013).

330. *See, e.g.* Marianne Bertrand & Sendhil Mullainathan, *Are Emily and Greg More Employable than Lakisha and Jamal? A Field Experiment on Labor*

treatment,³³¹ and perceptions of a suspect's dangerousness.³³² There are also studies that do not show a relationship between IAT scores and behavior.³³³

There have been few experimental studies trying to assess judges' implicit bias. The RGW trio did one test of black/white bias among generalist judges in criminal cases, using state court judges (133 state or local trial judges) as subjects.³³⁴ Their IAT results showed that judges, like most white Americans, more closely associate African Americans than whites with negative concepts.³³⁵ The results of their experiments showed that those biases sometimes influenced judgments in hypothetical cases.³³⁶ It also showed, though, that in some instances—when the judges were aware of a need to monitor their own responses for the influence of implicit racial bias and motivated to suppress it—judges could focus more consciously on the issue of race and compensate for their implicit bias.³³⁷

Two of their tests did not involve explicit mentions of race, but were preceded by a subconscious “priming” task in which the test subjects were (or were not) exposed to words associated with black Americans.³³⁸ They found in both cases that “judges who expressed a white preference on the IAT were somewhat more likely to impose harsher penalties when primed with black-associated

Market Discrimination, 94 AMER. ECON. REV. 991, 1011 (2004); Dan-Olof Rooth, *Automatic Associations and Discrimination in Hiring: Real World Evidence*, 17 LABOUR ECON. 523, 530 (2010).

331. See Anthony Green et al., *Implicit Bias Among Physicians and Its Prediction of Thrombolysis Decisions for Black and White Patients*, 22 J. GEN. INTERNAL MED. 1231, 1231 (2007) (detailing implicit bias within the medical profession).

332. See Joshua Correll et al., *Across the Thin Blue Line: Police Officers and Racial Bias in the Decision to Shoot*, 92 J. PERSONALITY & SOC. PSYCHOL. 1006, 1006 (2007) (finding that police officers and general members of the community exhibit “robust racial bias” in decisions whether to shoot).

333. See Oswald et al., *supra* note 329, at 188 (“[T]he IAT provides little insight into who will discriminate against whom, and provides no more insight than explicit measures of bias.”).

334. *Unconscious Racial Bias*, *supra* note 253, at 1205.

335. *Id.* at 1197.

336. *Id.*

337. *Id.* at 1197, 1221.

338. See *id.* at 1212–13 (examples include Harlem, homeboy, rap, basketball, gospel, Oprah, dreadlocks, welfare, rhythm, and soul).

words than when primed with neutral words, while judges who expressed a black preference on the IAT reacted in an opposite fashion to the priming conditions.”³³⁹

On the other hand, when race was more explicit, there was no significant correlation between conviction and the judges’ IAT scores.³⁴⁰ “Judges who exhibited strong white preferences on the IAT did not judge the white and black defendants differently, and neither did judges who expressed black preferences on the IAT.”³⁴¹ The researchers attributed this result to the judges’ awareness (even though not told, most figured it out) that they were being studied for racial bias, and they were highly motivated to avoid being seen as biased in carrying out their assigned task.³⁴²

Absent the triggering and motivation, there are grounds to worry that judges are not sufficiently self-aware to correct for bias. The same researchers asked a group of judges to rate their ability to “avoid racial prejudice in decision making”³⁴³ relative to other judges attending the same conference. Thirty-five out of thirty-six (97%) of the judges rated themselves in the top half, and eighteen out of the thirty-six (50%) rated themselves in the top quarter of ability.³⁴⁴ The RGW group noted, “We worry that this result means that judges are overconfident in their ability to avoid the influence

339. *Id.* at 1217.

340. *See id.* at 1219 (“[W]e did not even find a marginally significant interaction here.”).

341. *Id.* These results were quite different from results using the same materials as this third test by Professors Sommers & Ellsworth, who had only white subjects and who found that ninety percent of the participants who read about an African American defendant said that they would convict as compared to only seventy percent of participants who read about a Caucasian participant. Samuel R. Sommers & Phoebe C. Ellsworth, *White Juror Bias: An Investigation of Prejudice Against Black Defendants in the American Courtroom*, 7 PSYCHOL., PUB. POL’Y, & L. 201, 216–17 (2001).

342. *See Unconscious Racial Bias*, *supra* note 253, at 1223–24 (suggesting that white judges “probably engaged in cognitive correction to avoid the appearance of bias”).

343. *Id.* at 1225.

344. *Id.* This result is consistent with a study of administrative law judges: 97.2% placed themselves in the top half compared to other attendees with respect to their capacity for avoiding bias in judging (50% in the top quartile and 47.2% in the second quartile). Chris Guthrie et al., *The “Hidden” Judiciary: An Empirical Examination of Executive Branch Justice*, 58 DUKE L.J. 1477, 1519 (2009).

of race and hence fail to engage in corrective processes on all occasions.”³⁴⁵

As part of a larger experiment designed to see whether specialist judges would be more able to overcome heuristics, the RGW group tested whether the race of a debtor would affect the decision of a bankruptcy judge.³⁴⁶ They gave the judges an elaborate fact pattern involving discharge of student debt for undue hardship; the test for discharge required the judge to make findings about three specific factors.³⁴⁷ Everything was identical, except that the name of the debtor varied, using names that prior researchers had indicated were associated with African Americans or with Anglos.³⁴⁸ The results showed no statistically significant racial bias.³⁴⁹ Judges given debtors with African American sounding names discharged a mean of 56.2% of the debt (\$47,106), while those given debtors with Anglo-sounding names discharged a mean of 57.9% (\$48,506) of the debt.³⁵⁰ Although not correlated with race, it is interesting to note that Democratic judges discharged a mean of \$50,972, while Republican judges discharged a mean of \$34,232.³⁵¹ This would seem to indicate that there was enough leeway involved in the decision to generate differences—but for this group of bankruptcy judges, political attitudes about debtors and government assistance were far more significant than race in influencing the judges’ decisions.³⁵²

345. *Unconscious Racial Bias*, *supra* note 253, at 1226.

346. *See Bankruptcy Judge’s Mind*, *supra* note 251, at 1245–47 (outlining the facts and materials involved in the problem).

347. *Id.* at 1247.

348. *Id.* The names identified as African American-sounding were Ebony, Latonya, Kenya, Latoya, Tanisha, Lakisha, Tamika, Keisha, and Aisha. The names identified as Anglo-sounding were Kristen, Carrie, Laurie, Meredith, Sarah, Allison, Jill, Anne, and Emily. *Id.* These names were previously used on fake resumes in an employment-bias test conducted by Marianne Bertrand and Sendhil Mullainathan. Bertrand & Mullainathan, *supra* note 330, at 1011.

349. *Bankruptcy Judge’s Mind*, *supra* note 251, at 1247.

350. *Id.* Some of the judges reported after the presentation of the test results that they did not remember the name of the debtors in their cases, perhaps because their attention was elsewhere. *Id.* at 1248. The factual and legal complexity of the task likely triggered the use of System 2 cognition.

351. *Id.* at 1247–48.

352. *Id.* at 1248. A different group of experimenters examined implicit bias targeting different groups, testing for implicit bias regarding Asian Americans and Jews. Justin D. Levinson et al., *Judging Implicit Bias: A National Empirical*

In observational studies examining the potential impact of judges' personal characteristics, including race and gender, patterns emerge in cases in which that characteristic might be salient, indicating that the judges' "experience" differs in ways that can affect outcomes. It would make sense that a judge's lived experience as a member of a traditionally disadvantaged group might affect the inferences that the judge would draw. Many of the studies are in the context of the criminal justice system.³⁵³ On the civil side, one context is especially enlightening: cases alleging employment discrimination based on race or gender. For example, studies found that:

- Female judges favored plaintiffs in employment discrimination cases relative to their male counterparts.³⁵⁴
- For female trial judges, the average predicted probability of ruling for the sex discrimination plaintiff was thirty-five percent.³⁵⁵ For male judges, this number was only twenty percent.³⁵⁶
- There was a 126% increase in the likelihood of a black trial judge ruling in favor of the EEOC's race discrimination claim compared to a white trial judge.³⁵⁷
- Plaintiffs in racial harassment cases were successful in forty-six percent of their cases before black judges but less than half as often before white judges; logistic regression analysis indicated that on average, plaintiffs before black

Study of Judicial Stereotypes, 69 FLA. L. REV. 63, 68–69 (2017). They administered the test to 180 federal judges and fifty-nine state judges. *Id.* at 68. On their IAT tests, the judges showed moderate to strong implicit bias against both Asians (relative to Caucasians) and Jews (relative to Christians). *Id.*

353. See, e.g., *Unconscious Racial Bias*, *supra* note 253, at 1218 (finding that in a hypothetical battery case "black judges were significantly more willing to convict the defendant when he was identified as Caucasian rather than as African American").

354. Donald R. Songer et al., *A Reappraisal of Diversification in the Federal Courts: Gender Effects in the Courts of Appeals*, 56 J. POL. 425, 436 (1994).

355. Christina L. Boyd, *Representation on the Courts? The Effects of Trial Judges' Sex and Race*, 69 POL. RES. Q. 788, 793 (2016).

356. *Id.*

357. *Id.* at 793–94. Black judges were also more likely than white judges to rule in favor of plaintiffs in sex discrimination cases. *Id.* at 794.

judges were 3.3 times more likely to win than before white judges.³⁵⁸

One recent study is intriguing, supporting the possibility that the judge's experience, rather than sheer identity alone, can affect inferences.³⁵⁹ Using a data set on judges' families and a data set of nearly 1,000 gender related cases, Professors Glynn and Sen found that judges with at least one daughter vote in a more liberal fashion on gender issues than judges with no daughter.³⁶⁰ "The effect is robust and appears driven largely by male Republican appointees."³⁶¹ The most likely explanation: "having daughters leads judges to learn about issues that they ordinarily would not be exposed to—such as discrimination on the basis of pregnancy, Title IX, and reproductive rights issues."³⁶² In other words, having daughters can change the judges' experience and view of the world in ways that makes inferences in favor of female litigants more plausible.³⁶³

Federal judges in particular live in a somewhat rarified, elite environment in which they are isolated from both lawyers and the public, and they are treated with great deference. All of that can be a good thing when it comes to avoiding ethical conflicts and respecting the role of the courts, but it makes it even more challenging for them to have experiences that give them insights into the personal and professional experiences of everyday litigants. The judges' own experiences will predictably affect the

358. Pat K. Chew & Robert E. Kelley, *Myth of the Color-Blind Judge: An Empirical Analysis of Racial Harassment Cases*, 86 WASH. U. L. REV. 1117, 1156 (2009). See also Jennifer L. Peresie, Note, *Female Judges Matter: Gender and Collegial Decisionmaking in the Federal Appellate Courts*, 114 YALE L.J. 1759, 1761 (2005) (reporting on gender-based panel effects in Title VII appeals).

359. Adam N. Glynn & Maya Sen, *Identifying Judicial Empathy: Does Having Daughters Cause Judges to Rule for Women's Issues?*, 59 AM. J. POL. SCI. 37, 37 (2015).

360. *Id.* at 38.

361. *Id.* Having daughters had no effect on cases without a gender dimension. *Id.* at 47.

362. *Id.* at 51. Cf. Patricia Yancey Martin et al., *Gender Bias and Feminist Consciousness Among Judges and Attorneys: A Standpoint Theory Analysis*, 27 SIGNS: J. WOMEN CULTURE & SOC'Y 665, 667 (2002) ("[I]ndividuals' social location in the sex-gender system affects their experiences, interpretations, and, ultimately, consciousness within and beyond legal contexts.").

363. Glynn & Sen, *supra* note 359, at 51.

generalizations they bring to inference-drawing, and their heuristics can amplify the biases that result.

E. Cultural Cognition

Another type of non-merits influence that can affect the ways that judges draw inferences is cultural cognition. “Cultural cognition refers to the tendency of individuals to conform their beliefs about disputed matters of fact . . . to values that define their cultural identities.”³⁶⁴ Cultural cognition does not grow solely out of an over-use of heuristics.³⁶⁵ “On the contrary, multiple studies have found that the individuals most proficient in and most disposed to resort to System 2 modes of information processing are even more likely to construe information in a manner that evinces identity-protective reasoning.”³⁶⁶ Nevertheless, a cluster of System 1 heuristics form the backbone of cultural cognition.³⁶⁷

The mechanisms that result in cultural cognition include the availability heuristic, biased assimilation of information,³⁶⁸ credibility (social affinities used to assess credibility and trustworthiness of sources of information),³⁶⁹ and affect heuristic (identity-protective motivations “to conform one’s beliefs to those of like-minded others in order to avoid dissonance and protect

364. *The Cultural Cognition Project at Yale Law School*, YALE L. SCH., <https://perma.cc/V2Q8-K3TR> (last visited Sept. 5, 2019) (on file with the Washington and Lee Law Review).

365. See Dan M. Kahan et al., “*Ideology*” or “*Situation Sense*”? An Experimental Investigation of Motivated Reasoning and Professional Judgment, 164 U. PA. L. REV. 349, 369 (2016) [hereinafter “*Ideology*” or “*Situation Sense*”?] (“Experimental study of identity-protective cognition, however, shows that it is *not* a consequence of over-reliance on heuristic information processing.”).

366. *Id.*

367. *Id.*

368. See Dan M. Kahan et al., *Who Fears the HPV Vaccine, Who Doesn’t, and Why? An Experimental Study in the Mechanisms of Cultural Cognition*, 34 L. & HUM. BEHAV. 501, 510 (2010) [hereinafter *Who Fears the HPV Vaccine*] (“Biased assimilation refers to the tendency of individuals selectively to credit and dismiss information in a manner that confirms their prior beliefs.”).

369. See *id.* at 504 (“[C]ultural affinity and cultural difference supply the relevant in-group/out-group references that in turn determine whom people see as knowledgeable, honest, and unbiased, and thus worthy of being credited in debates about risk.”).

social standing”).³⁷⁰ In fact, much of the difference in perception “coheres with membership in groups integral to personal identity, such as race, gender, political party membership, and religious affiliation”³⁷¹ The net result of these factors can be that perception of facts is unconsciously motivated by a person’s identity-defining commitments.³⁷² The theory of cultural cognition also complements the heuristic model by “showing how one and the same heuristic process (whether availability, credibility, loss aversion, or affect) can generate different perceptions of risk in people with opposing outlooks.”³⁷³

Researchers at Yale Law School’s Cultural Cognition Project have done two particularly noteworthy experiments to assess the impact of cultural cognition on legally relevant fact finding.³⁷⁴ Both studies examined the test subjects’ interpretations of what they saw on videotapes.³⁷⁵ One was unedited video that had been the subject of a U.S. Supreme Court opinion—one in which Justice Scalia’s majority saw no possibility of differing interpretations.³⁷⁶

370. Dan Kahan et al., *Cultural Cognition of Scientific Consensus*, 14 J. RISK RES. 147, 149 (2011). *See also* *Who Fears the HPV Vaccine*, *supra* note 368, at 506 (identifying biased assimilation and source credibility as the mechanisms behind cultural cognition).

371. *Who Fears the HPV Vaccine*, *supra* note 368, at 503.

372. *See They Saw a Protest*, *supra* note 3, at 860 (explaining that even citizens committed to liberal neutrality will still divide along cultural lines “[b]ecause their perceptions of risk and related facts are unconsciously motivated by their defining commitments”). *See also* Dan M. Kahan, *The Politically Motivated Reasoning Paradigm, Part 1: What Politically Motivated Reasoning Is and How to Measure It*, in EMERGING TRENDS IN SOCIAL & BEHAVIORAL SCIENCES 1, 3–6 (Robert Scott & Stephen Kosslyn eds., 2016) (comparing and contrasting politically motivated reasoning with confirmation bias; the goal of the former is identity protection).

373. *Who Fears the HPV Vaccine*, *supra* note 368, at 503.

374. *See* Dan M. Kahan et al., *Whose Eyes Are You Going to Believe?: Scott v. Harris and the Perils of Cognitive Illiberalism*, 122 HARV. L. REV. 837, 852 (2009) [hereinafter *Whose Eyes Are You Going to Believe*] (detailing an experiment); *They Saw a Protest*, *supra* note 3, at 851 (same).

375. *Whose Eyes Are You Going to Believe*, *supra* note 374, at 838; *They Saw a Protest*, *supra* note 3, at 851.

376. *Whose Eyes Are You Going to Believe*, *supra* note 374, at 903. In the case that ended up at the Supreme Court as *Scott v. Harris*, five judges (the trial judge, the Eleventh Circuit panel, and Justice Stevens) and eight judges (Justice Scalia and the Supreme Court majority) reached opposite conclusions about whether the only reasonable inference from the video was that the fleeing driver posed a significant danger to police or the public. *Harris v. Coweta Cty.*, No. CIVA

The study, however, demonstrated that people with different cultural commitments drew very different inferences about danger and fault from watching the same videotape of a speeding driver fleeing a police car.³⁷⁷

Another dramatic demonstration of the impact of cultural cognition involved a video of protesters in a public place.³⁷⁸ The test subjects³⁷⁹ were shown a video of a political demonstration, but half believed it to be a protest outside an abortion clinic³⁸⁰ and half believed that the demonstrators were protesting the military's "don't ask/don't tell" policy outside of a recruitment facility.³⁸¹ (Neither was actually true.)³⁸² Whether the subjects thought the protesters obstructed and threatened pedestrians "[depended] critically on the relationship between the demonstrators' causes and the subjects' own values. . . . Responses on other items—such as whether the protestors 'screamed in the face' of pedestrians—displayed similar patterns."³⁸³ In other words, if the test subjects disagreed with the protesters, they were far more likely to infer obstruction, screaming, and intent to threaten; if they agreed with the protesters, they were less likely to infer those

3:01CV148 WBH, 2003 WL 25419527 (N.D. Ga. Sept. 25, 2003), *rev'd in part*, 433 F.3d 807 (11th Cir. 2005), *rev'd sub nom.* Scott v. Harris, 550 U.S. 372 (2007).

377. *Whose Eyes Are You Going to Believe*, *supra* note 374, at 903.

378. *They Saw a Protest*, *supra* note 3, at 863.

379. The subjects were 202 American adults who were selected randomly from a stratified national sample by Polimetrix, Inc. *Id.* at 869.

380. The abortion clinic version of the video is available here: videoreview12, *Abortion Clinic 11 22 2010*, YOUTUBE (Jan. 6, 2011), http://youtu.be/k8ru-FE2v_8 (last visited Sept. 5, 2019) (on file with the Washington and Lee Law Review).

381. The military recruiting version of the video is available here: videoreview12, *Recruit_Center_11192010.m4v*, YOUTUBE (Jan. 6, 2011), <https://youtu.be/X3PJACpL53k> (last visited Sept. 5, 2019) (on file with the Washington and Lee Law Review).

382. *They Saw a Protest*, *supra* note 3, at 872–73.

383. *Id.* at 878, 883. Relatively few study participants from any group reported seeing spitting or shoving, regardless of their cultural identity. *Id.* at 883. The researchers believe this to be evidence that differing values only affect contexts in which there is legitimate room for interpretation. *Id.* It also helps show that the participants were not responding in a *consciously* biased way. *Id.*

actions.³⁸⁴ And yet all of these groups watched the identical 3.5 minute video.³⁸⁵

There is little empirical testing of the effect of cultural cognition on judges. One study examined the reactions of a sample of judges to social science studies relating to the deterrent effect of the death penalty.³⁸⁶ Although the judges applied evidence law fairly neutrally in making decisions about admissibility, the judges' pre-existing opinions and political outlooks correlated with their decision about whether to afford "dispositive weight" to the studies in determining the constitutionality of the death penalty.³⁸⁷

Political science literature is rife with studies showing a correlation between judges' legal decisions and their political preferences.³⁸⁸ And there is little question that when a normative position is intrinsic to the judicial decision to be made, judges' ideology will be reflected in their decisions. But what about decisions in which the preference-salient fact is not legally relevant?

One experimental study by Professors Kahan, Hoffman, and others looked at judges and cultural cognition; it concluded that non-intrinsic cultural commitments do not influence judges who are using their System 2 deliberative reasoning to interpret somewhat ambiguous statutory language in order to apply it to a set of facts.³⁸⁹ More specifically, the judges and test subjects considered two hypothetical cases.³⁹⁰ In one, defendants who would be culturally attractive to one group and unappealing to another were charged under a statute prohibiting "littering, disposing, or depositing any form of garbage, refuse, junk, or other debris" on

384. *Id.* at 878.

385. *Id.* at 872.

386. See Richard E. Redding & N. Dickon Reppucci, *Effects of Lawyers' Socio-Political Attitudes on Their Judgments of Social Science in Legal Decision Making*, 23 L. & HUM. BEHAV. 31 (1999) (theorizing that judges often ignore social science research that refutes their sociopolitical beliefs).

387. *Id.* at 34–35.

388. See, e.g., Lee Epstein et al., *Ideology and the Study of Judicial Behavior*, in IDEOLOGY, PSYCHOLOGY, AND LAW 705, 717–23 (Jon Hanson ed., 2012) (surveying political science literature on ideology and judicial decision making).

389. "Ideology" or "Situation Sense"?, *supra* note 365, at 410.

390. *Id.* at 380.

the “grounds of a national wildlife preserve.”³⁹¹ Both defendants were leaving empty water jugs that they intended to use to help themselves or others.³⁹² In the second hypothetical, the issue was whether a statute prohibiting “knowing” disclosure of confidential information would cover actions by a police officer that were done intentionally but without knowledge that the action was illegal.³⁹³ The reasons for disclosure were the variable, this time polarized around attitudes toward abortion.³⁹⁴

Comparing 253 sitting state court judges to a control group of 800 members of the public (including lawyers and law students), the study found that judges’ legal training “enables judges of diverse cultural identities to converge on ‘correct’ answers to statutory interpretation questions that trigger polarization along identity-protective lines in the public.”³⁹⁵ The same results were observed in the lawyers.³⁹⁶ Note, though, that the test cases involved situations that suggested clear “correct” answers to a legally-trained person. Items placed in the wildlife reserve to be useful are unlikely to be “garbage, refuse, junk, or debris.”³⁹⁷ Even more so, the oft-invoked principle that “ignorance of the law is no excuse” may have made it seem quite obvious to lawyers that an intentional act was “knowing.”³⁹⁸ This result—the ability of a clear legal principle to override heuristic biases—is consistent with Professor Girvan’s study (on law students) showing that legal rules can override heuristic biases, while standards and balancing tests do not.³⁹⁹ It would be interesting to see a study in which the interpretation-application task was in a context which would seem

391. *Id.*

392. *Id.*

393. *Id.* at 382.

394. *Id.*

395. See James R. Steiner-Dillon, *Epistemic Exceptionalism*, 52 IND. L. REV. 207, 232 (2019) (describing the study by Kahan).

396. “Ideology” or “Situation Sense”?, *supra* note 365, at 411.

397. *Id.* at 380–82.

398. *Id.* at 382–84.

399. See *supra* note 312 and accompanying text (describing the results of Girvan’s study). On the other hand, this study contrasts interestingly with the RGW study of the impact of affect. See Heart Versus Head, *supra* note 229, at 877–88 (finding that judges’ interpretation of an ambiguous statute varied with the sympathy one would feel with the defendant).

more indeterminate even to legally trained test subjects. Would the judges' cultural identities exert more influence under those conditions?

This study also does not purport to address the question of whether judges' cultural cognition affects their decisions about disputed *facts*, including inferences.⁴⁰⁰ The RGW group, in writing about a study of judges' susceptibility to the affect heuristic, predicted that the impact on fact finding might be even stronger than that on legal analysis: "We cannot say for sure, of course, but we believe that emotion exerts even greater influence on fact finding. Many believe that facts are more uncertain than law, and the greater the indeterminacy the greater the opportunity for extrinsic influences, such as affect, to intrude."⁴⁰¹

F. Judicial Demographics

Heuristics are mental processes that operate to foreground information, but they will bring forward different information for different people, because those people have different information and experiences (availability), and different attitudes (confirmation and affect heuristics, implicit biases, and cultural identities). These differences will lead to different generalizations and different inferences. Across the federal judiciary, the collective impact of heuristics would be somewhat less worrying if the judiciary were well-balanced in terms of professional and life experiences and cultural commitments. But is this the case?

The Congressional Research Service did a study of the demographics of the federal district and circuit courts as of June 2017.⁴⁰² Focusing on the district courts, where the bulk of the

400. See "Ideology" or "Situation Sense"?, *supra* note 365, at 410 (noting the study's scope).

401. *Heart Versus Head*, *supra* note 229, at 904.

402. BARRY J. McMILLION, CONG. RESEARCH SERV., R43426, U.S. CIRCUIT AND DISTRICT COURT JUDGES: PROFILE OF SELECT CHARACTERISTICS (2017). While the study also contained information about sitting judges' job positions immediately prior to being appointed to their current federal judicial position, its categories are too broad to be very informative (e.g. "private practice"), and it does not contain information about all of the judge's pre-bench professional work. The percentage of judges coming to the district bench directly from private practice has decreased over time. See Russell Wheeler, *Changing Backgrounds of U.S. District Judges: Likely Causes and Possible Implications*, 93 JUDICATURE 140, 141

pretrial inferences are made, the data shows a group that is heavily white, male, and older. Of the 570 active district judges at that time, only 194 (34%) were women.⁴⁰³ In terms of race, 406 (71%) were white, 81 (14%) were African American, 58 (10%) were Hispanic, 16 (3%) were Asian American, 1 (.2%) was American Indian, and 8 (1.4%) were multiracial.⁴⁰⁴ Of the ten judicial districts with the highest percentage of the population that is African American, four had no currently serving African American judges (the Southern and Middle Districts of Alabama, Southern District of Georgia, and Western District of Louisiana).⁴⁰⁵

It is likely that the percentage of white and male judges has increased somewhat under President Trump. As of August 5, 2019, of his ninety-nine appointees to the federal district courts, he appointed sixty-four (64.6%) white male and nineteen (19.2%) white female district court judges (so 83.8% of his appointees are white).⁴⁰⁶ He appointed fourteen (14.1%) district court judges of either sex (three female, eleven male) who are non-white.⁴⁰⁷

Some research indicates that the presence of some nontraditional judges may help to broaden the perspective of other

(2010) (showing that sixty-seven percent of President Eisenhower's appointees to the U.S. district bench came from private practice, while only thirty-four percent of President George W. Bush's appointees did so).

403. McMILLION, *supra* note 402, at 15.

404. *Id.* at 17.

405. *Id.* When gender and race are combined, the data show that as of June 2017, 49.3% of federal district judges were white men, 21.9% were white women, 8.1% were African American men, 6.1% were African American women, 6.5% were Hispanic men, 3.7% were Hispanic women, 1.6% were Asian American men, and 1.2% were Asian American women. *Id.* at 19–20. The report noted that all categories other than white men are considered to be “nontraditional” and that 56.1% of the active nontraditional district judges had been appointed by President Obama. *Id.* at 21–22. Statistics on age show that the federal district judges skew older. In June of 2017, the average age of a U.S. District Judge was 60.8 years (the median was 61.3). *Id.* at 23. The largest group (269 judges—or 47.2%) are between the ages of 60 and 69. *Id.* An additional fifty-three judges (9.3%) are seventy or older, making 56.5% of all federal district judges over sixty years of age. *Id.*

406. Calculations were made using the search tool *Biographical Directory of Article III Federal Judges, 1789–Present*, FEDERAL JUDICIAL CENTER, <https://perma.cc/3GBP-E2SL> (last visited Sept. 5, 2019) (on file with the Washington and Lee Law Review).

407. *Id.*

judges. One type of study focuses on the courts of appeal and looks at “panel effects,” while others examine the possibility that a critical mass of nontraditional judges can make a difference.⁴⁰⁸ In that regard, the federal district courts are a mixed bag. In June of 2017, there was at least one active female district judge in eighty of ninety-one district courts, but there were no women serving on eleven district courts.⁴⁰⁹ Thirty-seven district courts had only one active female judge.⁴¹⁰ Lack of racial minorities was even more dramatic. In June of 2017, “there were African American judges serving on 44, or 48%, of the nation’s 91 U.S. district courts; Hispanic judges serving on 24 (26%) of the courts; and Asian American judges serving on 12 (13%) of the courts.”⁴¹¹ Twenty-three of the district courts that did have an African American judge had only one.⁴¹² Only seven courts have at least one active district judge from all three of the groups counted (“i.e.,

408. See, e.g., Christina L. Boyd, Lee Epstein & Andrew D. Martin, *Untangling the Causal Effects of Sex on Judging*, 54 AM. J. POL. SCI. 389, 406 (2010) (“For males at relatively average levels of ideology, the likelihood of a liberal, pro-plaintiff vote increases by almost 85% when sitting with a female judge.”); Pat K. Chew, *Comparing the Effects of Judges’ Gender and Arbitrators’ Gender in Sex Discrimination Cases and Why it Matters*, 32 OHIO ST. J. ON DISP. RESOL. 195, 202 (2017) (“[E]vidence indicates that when groups are comprised of more diverse members, those members learn from each other and provide checks on the correctness of shared information, ultimately leading to more accurate decisionmaking.”); Paul M. Collins, Jr., Kenneth L. Manning & Robert A. Carp, *Gender, Critical Mass, and Judicial Decision Making*, 32 L. & POL’Y 260, 265 (2010) (“Prior research suggests that the mere presence of decision makers from an underrepresented group in the overall decision-making environment may be enough to have a discernable effect on the output of that environment, so long as a certain ‘critical mass’ is reached.”); Sean Farhang & Gregory Wawro, *Institutional Dynamics on the U.S. Court of Appeals: Minority Representation Under Panel Decision Making*, 20 J.L. ECON. & ORG. 299, 300 (2004) (arguing that an institutional norm of unanimity encourages deliberation, which in turn may allow numerical minorities on panels to influence case outcomes). *But cf. Unconscious Racial Bias*, *supra* note 253, at 1227 (describing a study in which white judges, in a jurisdiction consisting of roughly half white and half black judges, still showed strong implicit biases, and observing that “[e]xposure to a group of esteemed black colleagues apparently is not enough to counteract the societal influences that lead to implicit biases”).

409. MCMILLION, *supra* note 402, at 15.

410. *Id.* at 16.

411. *Id.* at 17.

412. *Id.*

there was at least one active African American, Hispanic, and Asian American judge serving on the court”).⁴¹³

From an income perspective, federal district judges are, by virtue of their salaries alone, in a place that makes them different from many litigants. For 2017, the annual salary of federal district judges was \$205,100.⁴¹⁴ The U.S. Census Bureau puts the 2017 median household income at \$61,372, so judges are well above the median.⁴¹⁵ In fact, a recent Economic Policy Institute study shows that the district judge salary is comfortably in the average salary of the top ten percent of earners for 2017.⁴¹⁶

Taking all of this demographic information together, it seems possible that the experience of the federal district judges as a group may be skewed toward the experiences of the affluent, white, male majority.⁴¹⁷ While studies do not seem to show across-the-board differences between the decisions of male and female judges, or between white judges and judges of color, there is evidence of race and gender differences when race or gender is a salient issue in the case.⁴¹⁸ Further studies, examining more fine-tuned heuristics, implicit biases, and cultural commitments may find additional effects. In any case, conscious efforts to appoint a body of trial-level judges who are diverse across a number of measures would help to avoid overall tipping of inferences and even substantive law in favor of the experiences of a homogeneous group.⁴¹⁹

413. *Id.*

414. *Judicial Salaries: U.S. District Court Judges*, FEDERAL JUDICIAL CENTER, <https://perma.cc/URM3-X5TN> (last visited Sept. 5, 2018) (on file with the Washington and Lee Law Review).

415. Jonathan L. Rothbaum, U.S. Census Bureau, *Redesigned Questions May Contribute to Increase*, U.S. CENSUS BUREAU (Sept. 12, 2018), <https://perma.cc/TE9H-46NW> (last visited Sept. 5, 2019) (on file with the Washington and Lee Law Review).

416. Lawrence Mishel & Julia Wolfe, *Top 1% Reaches Highest Wages Ever—Up 157% Since 1979*, ECON. POL’Y INST. (Oct. 18, 2018, 11:49 AM), <https://perma.cc/28ZC-UZMJ> (last visited Sept. 5, 2019) (see Table 1) (on file with the Washington and Lee Law Review).

417. See *supra* notes 402–416 and accompanying text (noting that most judges in the U.S. are white males).

418. See *supra* notes 354–358 and accompanying text (describing the effect of various biases on case outcomes).

419. For example, it can be argued that the heuristics and biases of the dominant culture have caused the substantive law of employment discrimination

G. Summary

Where does all this get us? With respect to judges as a group:

- During the pretrial period, they make countless decisions that are based on the evaluation and drawing of inferences.⁴²⁰
- Those inferences can differ significantly from judge to judge.⁴²¹
- Those differences often turn on differences in the judges' "experience and common sense" and the generalizations that those factors produce.⁴²²
- That "experience and common sense" expresses itself through the powerful operation of mental shortcuts—heuristics and biases—that work automatically and at an unconscious level in a way that can influence even deliberate decision making.⁴²³
- At times, the heuristics pave the way for implicit biases and culturally motivated cognition to affect judicial decisions, even in judges who are consciously committed to an unbiased and impartial judicial system.⁴²⁴
- The heuristics and biases can be particularly hard to tame, because of a cluster of person-centered heuristics that falsely lead people (including judges) to believe that they are more correct, their opinions more universally held, and their ability to avoid biases more exceptional than is in fact the case.⁴²⁵
- Judges' legal and professional training does not overcome the powerful influence of the unconscious processes in most cases that have been studied.⁴²⁶

to be shaped in a way that turns certain inferences (or rejection of inferences) into legal presumptions. See Nancy Gertner, *Losers' Rules*, 122 YALE L.J. ONLINE 109, 118–21 (2012) (noting presumptions regarding "stray remarks," "honest beliefs," and the requirements for comparators).

420. See *supra* Part III.

421. See *supra* Part III.

422. See *supra* Part IV.

423. See *supra* Part V.A.

424. See *supra* Part V.D–E.

425. See *supra* notes 211–214 and accompanying text.

426. See *supra* Part V.B.

- In situations involving legal analysis (as opposed to fact-finding), judges have sometimes shown themselves able to overcome the influence of hindsight bias and cultural cognition to apply a clear, applicable rule, but there are, as of yet, no studies with comparable results for fact-finding.⁴²⁷
- In situations where the danger of racial bias is explicit, motivated judges may be able to consciously offset the bias when applying legal standards to a fact pattern.⁴²⁸ However, when racial issues are suggested unconsciously, implicit associations influence the judge.⁴²⁹
- The demographics of the federal judiciary support a concern that the collective implementation of “experience and common sense” will skew both individual cases and the development of the law generally in the direction of the predominant judicial background, to the detriment of a wider array of experiences.⁴³⁰

More studies will be needed for a richer understanding of judicial cognition. But there is enough information already to give reasons for concern, especially given the pervasive nature of judicial fact inferences. Part VI will consider what systemic changes might help the inference process operate in a more reliable way.

VI. Improving the System

Inferences are certainly not going away. But there are measures that the federal courts could take to lessen the impact of problematic heuristics on the pretrial process. First, sustained training on heuristics, biases, and ways to combat them might have some effect. Second, practices that activate deliberative

427. See *supra* Part V.E.

428. See *supra* Part V.E.

429. But see *Bankruptcy Judge’s Mind*, *supra* note 251, at 1246–48 (finding that race did not play a significant role in a study where bankruptcy judges were asked to discharge an award to a hypothetical debtor with either an African American- or a white-sounding name).

430. See *supra* Part V.F.

thinking and encourage consideration of competing inferences can be institutionalized. Third, certain rules of procedure (and their interpretations) should be changed in ways that 1) enrich the factual record on which the judges rule; and 2) discourage methods of analysis that allow the judge to compare inferences.

A. Judicial Education

Court systems have already begun to provide judges with education about the existence of heuristics and techniques to help deal with them, particularly in the context of implicit bias. The Federal Judicial Center (FJC) has recently developed a set of judicial competencies, defined as “an area of proficiency essential for successful performance in a job.”⁴³¹ The knowledge competencies include a broad array of types of social cognition.⁴³² The competencies guide the judicial education curriculum, and the FJC has over the last several years offered numerous sessions on heuristics and implicit bias, including in new judge orientation, programs about “the art of judging” generally, and in substantive-law-specific programming.⁴³³ The FJC website hosts high-quality information on the nature of implicit bias and ways to reduce its impact.⁴³⁴ Similarly, the National Center for State Courts (NCSC) did a three-state pilot project to teach judges and court staff about implicit bias, and now has helpful resources on its website.⁴³⁵ Further, the American Judges Association’s project,

431. FEDERAL JUDICIAL CENTER, COMPETENCIES FOR UNITED STATES JUDGES v (June 2018).

432. The list includes cultural practices and norms inside and outside of the United States; social customs of groups besides one’s own; differences in communication styles among cultures; impact of implicit bias; impact of socio-economic status on personal decision making; different norms for interacting with authority figures; and experiences specific to race, religion, ethnicity, gender, sexual orientation, and gender identity. *Id.* at 8.

433. Telephone Interviews with Judge Jeremy Fogel, then-Director, Federal Judicial Center; educator Denise Neary, Senior Judicial Education Attorney, Federal Judicial Center; and researchers Jason Cantone, Senior Research Associate, and Beth Wiggins, Senior Researcher and Project Director, Federal Judicial Center (Sept.–Oct. 2018).

434. Jason A. Cantone (curator), *Federal and State Court Cooperation: Reducing Bias*, FEDERAL JUDICIAL CENTER, <https://perma.cc/ZLN3-5XSZ> (last visited Sept. 5, 2019) (on file with the Washington and Lee Law Review).

435. See Kang et al., *supra* note 12, at 1175 (describing pilot project); *Gender*

Making Better Judges, has resulted in a white paper that recognizes the influence of heuristics and makes suggestions for improvement.⁴³⁶

Although it is important that the courts are doing this kind of education, there is reason to doubt that education alone can have a decisive impact, particularly if it is delivered in short, episodic programs. The extensive literature on de-biasing training is beyond the scope of this Article, but two points are important to note here.

First, some types of training appear to be more effective than others in the short run, and they are more effective at raising awareness than at spurring the adoption of behavioral countermeasures. For example, one 2014 study tested seventeen methods for reducing implicit bias and found only eight to be effective at reducing implicit preferences for whites as compared to blacks.⁴³⁷ Another meta-study found that the positive effects were “greater when training was complemented by other diversity initiatives, targeted to both awareness and skills development, and conducted over a significant period of time.”⁴³⁸ It is quite clear that merely telling judges to “try harder” or “be unbiased” will not be effective.⁴³⁹

and *Racial Fairness Resource Guide*, NAT’L CTR. FOR ST. CTS., <https://perma.cc/832N-GLPB> (last updated Feb. 27, 2019) (last visited Sept. 5, 2019) (on file with the Washington and Lee Law Review); see also *Helping Courts Address Implicit Bias: Resources for Education*, NAT’L CTR. FOR ST. CTS. (2012), <https://perma.cc/QVH4-7NRX> (last visited Sept. 5, 2019) (providing tools to combat implicit bias) (on file with the Washington and Lee Law Review).

436. Pamela Casey, Kevin Burke & Steve Leben, *Minding the Court: Enhancing the Decision-Making Process*, 49 CT. REV.: J. AM. JUDGES ASS’N 76 (2013).

437. Calvin K. Lai et al., *Reducing Implicit Racial Preferences I: A Comparative Investigation of 17 Interventions*, 143 J. EXPERIMENTAL PSYCHOL.: GEN. 1765, 1766 (2014).

438. Katerina Bezrukova et al., *A Meta-Analytical Integration of Over 40 Years of Research on Diversity Training Evaluation*, 142 PSYCH. BULL. 1227, 1227 (2016).

439. See Dan Simon, *A Third View of the Black Box: Cognitive Coherence in Legal Decision Making*, 71 U. CHI. L. REV. 511, 543 (2004) (asserting that research on attempts to prevent bias and errors in judgment making indicates that direct approaches, such as simply informing participants of potential bias, are “generally unsuccessful”).

Thinking more specifically about judicial education, it may be that the most effective types of training in using deliberative rather than intuitive processes might be a combination of informational programs about heuristics (so that judges recognize that it is a “thing”) coupled with suggested skills that promote conscious thought.⁴⁴⁰ These could include techniques like “consider the opposite” or “consider alternatives,”⁴⁴¹ structured methods of calling mental attention to perspectives and experiences other than the judge’s own instinctive ones.⁴⁴² Education designed to increase motivation to minimize the impact of unconscious biases might also enhance the impact of the programs.⁴⁴³ This might include “periodic public reaffirmation of key professional norms,” particularly in avoiding bias.⁴⁴⁴ More generally, “motivated self-regulation” can result from awareness of bias that is inconsistent with a judge’s conscious commitments to fairness and accuracy.⁴⁴⁵ One study found:

The motivated self-regulation strategy operates by making people aware of their biased responses that stand in conflict

440. See NAT’L CTR. FOR ST. CTS., *supra* note 435, at 4; Kang et al., *supra* note 12, at 1174 (suggesting that teaching people about nonconscious thought processes can lead them to be more skeptical about their own objectivity).

441. See Jackie M. Poos et al., *Battling Bias: Effects of Training and Training Context*, 111 COMPUTERS & EDUC. 101, 109 (2017); *Heart Versus Head*, *supra* note 229, at 910; Nancy Levit, *Confronting Conventional Thinking: The Heuristics Problem in Feminist Legal Theory*, 26 CARDOZO L. REV. 391, 436–37 (2006); Stephanos Bibas, *Plea Bargaining Outside the Shadow of Trial*, 117 HARV. L. REV. 2463, 2523–24 (2004) (“Psychologists have repeatedly found that considering the opposite reduces overconfidence, biased information assimilation, biased hypothesis testing, and excessive perseverance of beliefs. This technique is effective because it tears people away from anchors favorable to their own positions and makes contrary anchors more accessible and salient.”).

442. See Simon, *supra* note 16, at 139 (suggesting techniques that “interfere in the normal process of making the decision and impede the indiscriminate adoption of one entire mental model”).

443. See Jeffrey J. Rachlinski & Andrew J. Wistrich, *Implicit Bias in Judicial Decision Making: How it Affects Judgment and What Judges Can Do About It*, in ENHANCING JUSTICE: REDUCING BIAS 87, 116 (Sarah E. Redfield ed., 2017) [hereinafter *Implicit Bias in Judicial Decision Making*] (stating that providing judges with reminders of their professional obligations may keep judges more conscious in preventing biased decision making).

444. *Id.*

445. See Mason D. Burns et al., *Training Away Bias: The Differential Effects of Counterstereotype Training and Self-Regulation on Stereotype Activation and Application*, 73 J. EXPERIMENTAL SOC. PSYCHOL. 97, 108 (2017).

with their personal beliefs. The resulting feelings of guilt and disappointment with the self then lead to a cascade of consequences that help people monitor for and regulate potentially biased responses in the future.⁴⁴⁶

Judicial motivation would likely be essential to successful education.⁴⁴⁷ “For any change to take place, it is imperative that judges be motivated to overcome their automatic processes.”⁴⁴⁸

Second, there is almost no evidence that anti-bias training has an effect in the long run. The same researchers who had found eight out of seventeen of the tested interventions against implicit bias to be effective did two more studies and reached a depressing conclusion: “In 2 studies with a total of 6,321 participants, all 9 interventions immediately reduced implicit preferences. However, none were effective after a delay of several hours to several days.”⁴⁴⁹ On a more positive note, one study did show small effects of training two years later.⁴⁵⁰

Education about the impact of nonconscious thought processes, then, might be of some help, especially if done as part of overall institutional systems and repeated over time.⁴⁵¹ It will be important for judicial education officials to attempt to assess the effectiveness of the programs they provide, both to identify the most promising techniques and to try to gauge the judiciary’s level of achievement of the desired competencies.⁴⁵² This type of assessment is difficult because self-reports about unconscious processes are apt to be unreliable (“No, I am not influenced by

446. *Id.*

447. Simon, *supra* note 16, at 140.

448. *Id.*

449. Calvin K. Lai et al., *Reducing Implicit Racial Preferences II: Intervention Effectiveness Across Time*, 145 J. EXPERIMENTAL PSYCHOL.: GEN. 1001, 1002 (2016); *see also* Bezrukova, *supra* note 438, at 1242 (“Comparing the immediate versus long-term effects of diversity training, we found that diversity training effects on reactions and attitudinal/affective learning decayed over time.”).

450. Patrick Forscher et al., *Breaking the Prejudice Habit: Mechanisms, Timecourse, and Longevity*, 72 J. EXPERIMENTAL SOC. PSYCHOL. 133, 146 (2017) (finding that participants were more likely to notice bias in themselves and confront bias in other two years after habit-breaking intervention training).

451. *See* Kang et al., *supra* note 12, at 1174 (noting characteristics of effective education).

452. Lai et al., *supra* note 449, at 1002.

unconscious cognition.”).⁴⁵³ Education, though, will not provide the magic bullet, and so further structural changes will be important.

B. Deliberation-Prompting Practices

The types of educational programs described above are primarily ways to equip judges to move from the automatic System 1 responses into deliberate System 2 thinking.⁴⁵⁴ In addition to training designed to raise awareness of the need to do so and some techniques for activating diverse perspectives, there are ways to create institutional requirements that foster more effortful thought. They would also have the benefit of making decisions more transparent and demonstrating that even arguments that the court has not adopted have been heard. Some techniques operate at the individual-judge level, while others would require the creation of systemic structures.

Scholars have made a number of suggestions about practices that can prompt judges to make themselves aware of the impact of their own unconscious processes.⁴⁵⁵ A jurisdiction might even mandate or incentivize use of some of these behaviors, at least in certain types of cases. Some—such as “consider the opposite”—have been discussed above as techniques to help make the judge aware of the contestability of her own intuitions.⁴⁵⁶ A related technique is referred to as “perspective-taking.”⁴⁵⁷ Here the judge would adopt the viewpoint of other individuals and examine the scenario through their life experiences.⁴⁵⁸ The use of decision protocols such as checklists and scripts may also encourage

453. See Kang et al., *supra* note 12, at 1176–77 (suggesting that mandatory disclosure of personal evaluations may “counter the benefits of increased self-knowledge”).

454. See *supra* Part V.A (defining System 1 and System 2 cognition).

455. See generally *Implicit Bias in Judicial Decision Making*, *supra* note 443; Kang et al., *supra* note 12; *Heart Versus Head*, *supra* note 229.

456. See *supra* note 441 and accompanying text (suggesting ways to combat internal biases in judicial decision-making).

457. *Implicit Bias in Judicial Decision Making*, *supra* note 443, at 113.

458. *Id.* Note, however, that this type of reasoning runs the risk of using stereotypes in making assumptions about what a person with a particular identity would be thinking. *Id.*

deliberation.⁴⁵⁹ The checklists could even require the judge to indicate that he or she had used a deliberative technique such as “consider the opposite” in order to check for the potential impact of heuristics.⁴⁶⁰ These physical reminders of an intention to counteract the impact of heuristics can help the judge form a new habit of doing so.⁴⁶¹

Retrospective self-analysis could also be helpful. Judges could record decisional data and periodically review it to look for patterns.⁴⁶² As Professor Kang and his co-authors noted, “Judges need to count.”⁴⁶³ A failure to live up to one’s own expectations can provide a judge with motivation to continue to try to consider others’ experiences and to think hard about the universality of “common sense.” Some judges have recently expressed interest in seeing a statistical analysis of their own decisions to help monitor their own performances, indicating that such data might find a receptive audience.⁴⁶⁴

When a decision might be influenced by emotion or affect, the judge should be encouraged to engage with that emotion rather than to try to suppress it.⁴⁶⁵ “Although some judges profess to

459. *Id.* at 119; NAT’L CTR. FOR ST. CTS., *supra* note 435, at 7. *See also Heart Versus Head*, *supra* note 229, at 910 (asserting that decision protocols facilitate deliberations by encouraging judges to analyze, share, and explain the feelings leading to a decision). Although checklists can help, they are also easily circumvented through unthoughtful, rote compliance if a judge is not actually motivated to locate and reconsider the impact of heuristics and biases. Research showing that the application of clear rules can overcome heuristic biases might argue in favor of replacing flexible legal standards with more fixed rules, but attempting to do so could be difficult and, worse, substantively undesirable.

460. *See Implicit Bias in Judicial Decision Making*, *supra* note 443, at 119 (suggesting that multifactor tests alone are not enough to eliminate implicit bias because judges may utilize heuristics in a way that would devalue the test).

461. *See id.* (suggesting that scripts and checklists reduce the likelihood a judge will overly rely on intuition).

462. *See id.* at 108–09 (suggesting that judges could perform self-audits by recording data regarding their discretionary decisions and evaluating this information over time).

463. Kang et al., *supra* note 12, at 1178.

464. *See* Judge Emily Miskel (@emilymiskel), TWITTER (June 4, 2019, 8:22 PM), <https://perma.cc/Y8B7-5PB2> (voicing support for statistical data); Chief Justice Bridget Mary McCormick (@BridgetMaryMc), TWITTER (June 4, 2019, 8:49 PM), <https://perma.cc/U9E2-79NN> (same).

465. *Heart Versus Head*, *supra* note 229, at 910.

follow suppression strategies, there is no evidence that such strategies are effective. In general, trying not to think about something not only is ineffective but may even have an ironic rebound effect.”⁴⁶⁶ Similarly, judges should avoid making difficult decisions when tired, stressed, distracted, or pressured.⁴⁶⁷

The capstone of a more slow and conscious process would be the practice of writing opinions that go into some detail about the reasons for the decision.⁴⁶⁸ Jurisdictions wanting to institutionalize this practice could, through statute or procedure rules, require opinion writing.⁴⁶⁹ Rethinking the way in which opinions are written could also promote deeper thought. Traditionally, once a judge has reached a conclusion, opinions tend to be written in a way that marshals every argument in support of that conclusion and downplays or ignores opposing arguments.⁴⁷⁰ Instead, opinions could recognize strong counterarguments that some scholars argue can help judges avoid “decisions based on their own culturally biased motivations.”⁴⁷¹ This could both

466. *Id.* See also Terry A. Moroney, *Emotional Regulation and Judicial Behavior*, 99 CALIF. L. REV. 1485, 1505, 1522, 1524 (2011) (recommending emotional introspection and disclosure).

467. NAT’L CTR. FOR ST. CTS., *supra* note 435, at 9. In one of the most disturbing studies on the impact of judges’ mental state on decisions, economists from Louisiana State University found that juvenile court judges who were LSU graduates handed down more severe sentences to black defendants during the week following an unexpected football loss. See generally Ozkan Eren & Naci Mocan, *Emotional Judges and Unlucky Juveniles*, 10 AM. ECON. J.: APPLIED ECON. 171 (2018).

468. See *Implicit Bias in Judicial Decision Making*, *supra* note 443, at 117–18 (suggesting judges should be required to write opinions more often in order to encourage deliberation).

469. See, e.g., FED. R. CIV. P. 11(c)(6) (“An order imposing a sanction must describe the sanctioned conduct and explain the basis for the sanction.”); FED. R. CIV. P. 65(b)(2) (“Every temporary restraining order issued without notice must . . . describe the injury and state why it is irreparable.”).

470. Kang et al., *supra* note 12, at 43–44; Simon, *supra* note 16, at 137.

471. Paul M. Secunda, *Cognitive Illiberalism and Institutional Debiasing Strategies*, 49 SAN DIEGO L. REV. 373, 392 (2012). See also Kang et al., *supra* note 12, at 43–44; *They Saw a Protest*, *supra* note 3, at 896 (suggesting that jurors and appellate panels might adopt a practice of “deliberate depolarization” in which a person expressing his or her own opinion would also express the strongest counterargument). This is easier said than done, however. The usual process of analyzing complex materials involves the judge, whose brain seeks coherence, unconsciously changing the evaluation of prior positions, and this process operates at an unconscious level. Simon, *supra* note 16, at 19–20.

highlight the need to consider those counterarguments and make the process and end result of the decision clearer both to the litigants and to members of the public who are interested in the dispute.

Deliberation is also more likely when the judge has adequate time to consider his or her decision.⁴⁷² In addition to the usual admonitions about taking time to reflect and avoiding making decisions when stressed or tired, one statutory reform could be useful here. A recent study demonstrated that the so-called “Six Month List,” a law mandating the disclosure twice a year of each judge’s pending cases and motions may actually have an effect on case outcomes.⁴⁷³ The forced deadlines (to avoid public shaming about perceived delay in disposing of cases) may in fact change the way judges rule.⁴⁷⁴

Other potential interventions create systems that allow judges to interact in ways that could help self-assess their decisions, look for patterns, and provide each other with peer feedback. A number of systems are possible, including collegial peer review committees that meet periodically to talk about their decisions and associated issues.⁴⁷⁵ Another alternative would be anonymous peer review, including concrete suggestions about how to improve performance.⁴⁷⁶

472. See *Implicit Bias in Judicial Decision Making*, *supra* note 443, at 111–12 (suggesting that mindfulness meditation, which entails slowing down an individual’s mental processes, may reduce implicit bias).

473. Miguel de Figueiredo, Alexandra D. Lahav & Peter Siegelman, AGAINST JUDICIAL ACCOUNTABILITY: EVIDENCE FROM THE SIX MONTH LIST (Feb. 20, 2018), <https://perma.cc/DMF6-HUNU> (PDF) [hereinafter *Evidence from the Six Month List*] (suggesting a law requiring judges to participate in biannual disclosures).

474. *Id.*

475. *Implicit Bias in Judicial Decision Making*, *supra* note 443, at 118; *Unconscious Racial Bias*, *supra* note 253, at 1230 (proposing an auditing program to evaluate judges’ decisions in the criminal justice system). For example, a small group of judges could meet periodically to talk about their rulings on summary judgment motions and the reasons for them. *Implicit Bias in Judicial Decision Making*, *supra* note 443, at 109.

476. *Implicit Bias in Judicial Decision Making*, *supra* note 443, at 109. As the authors note, it seems unlikely that judges would find this option attractive. *Id.* at 110 (noting judges may be reluctant to utilizing auditing procedures, because it could expose them to unfair criticism). A related example, also with political drawbacks, would be to identify certain types of cases in which the unconscious influence of heuristics could be particularly troubling, and handle appeals from

Systemic practices designed to incentivize or require judges to think about alternatives before reaching conclusions, to force themselves to go through each step of the analysis, and to articulate reasons for their decisions can be helpful in combatting misleading heuristics and in increasing transparency for the parties and the public.⁴⁷⁷ All of this also could help to reduce a bias blind spot held by the judges when faced with heuristics and training.⁴⁷⁸ But like training, they can do only so much. Our brains are programmed to minimize effortful thinking, and our socialization encourages us to reach decisions that are consistent with our political identities.⁴⁷⁹ Further changes are therefore necessary in order to enhance judicial fact-finding and decrease the instances in which the inferences of a single judge will terminate a case.

C. Procedure Rules

Procedural standards can do something that education and awareness cannot: they can structure rules so as to foster the development of a fuller factual record, leaving fewer gaps to be filled by inferences and informing those inferences with a richer and more nuanced set of facts. They can also make choices that give great weight to the right to trial by jury and minimize the ability of a single judge's inferences to end litigation.

1. Pleadings: Stop Comparing Inferences

In theory, judges are not finding facts when ruling on motions to dismiss on pleadings.⁴⁸⁰ During the last few decades, however,

those orders differently, assigning a de novo standard of review and a diverse panel of judges. *Unconscious Racial Bias*, *supra* note 253, at 1231.

477. See *Implicit Bias in Judicial Decision Making*, *supra* note 443, at 117–18 (suggesting a systematic requirement for judges to write opinions more frequently).

478. See *id.* at 117 (proposing that “the discipline of opinion writing might enable well-meaning judges to overcome their intuitive, impressionistic reactions”).

479. Kang et al., *supra* note 12, at 1177.

480. See Elizabeth Thornburg, *Law, Facts, and Power*, 114 PENN STATIM 1, 2 (2009) (discussing the policy-based nature of the law/fact distinction). Through a

changes in the application of procedure rules have led to a practice in which judges allow cases to move forward toward discovery only if they find the nonmovant's inferences to be at least as credible as the alternatives.⁴⁸¹ That makes the judge's assessment of inferences overly determinative, especially when one realizes that those inferences are not some kind of neutral mathematical calculation.⁴⁸²

Since the Supreme Court's decision in *Ashcroft v. Iqbal*,⁴⁸³ judges ruling on motions to dismiss for failure to state a claim have been tasked with taking only "facts" as true and accepting inferences only if they are "plausible."⁴⁸⁴ Although the opinion disclaims a requirement that the inference must be "probable," it rejects "mere possibility."⁴⁸⁵ In fact, the Court has refused to find an inference to be plausible if it believes another one to be more likely.⁴⁸⁶ *Iqbal* characterizes the result in *Twombly*⁴⁸⁷ as a decision that the phone companies' parallel conduct was "more likely explained by" an inference of free market behavior than illegal agreements.⁴⁸⁸ Similarly, the *Iqbal* plaintiffs' inferences of discriminatory conduct were found *comparatively* implausible: "given more likely explanations, they do not plausibly establish this purpose."⁴⁸⁹

Comparing inferences in this way puts far too much weight on the judge's own inference choices, colored by the judge's experience and attitudes.⁴⁹⁰ The question should not be whether the pleaded

kind of definitional sleight-of-hand, the judge's decision that an inference cannot be supported is defined as a question of "law." *Id.*

481. *Id.*

482. *See id.* at 9–11 (noting that the law-fact distinction created in *Iqbal* increases the power of judges).

483. 556 U.S. 662 (2009).

484. *Id.* at 678.

485. *Id.* at 679.

486. *Id.* at 681.

487. *Bell Atl. Corp. v. Twombly*, 550 U.S. 544 (2007).

488. *Iqbal*, 556 U.S. at 680.

489. *Id.* at 681.

490. *See Thornburg, supra* note 480, at 10 (asserting that the law-fact distinction in *Iqbal* privileges appellate court judges' impressions over trial judges' decisions).

inference is at least as probable (in the opinion of the judge) as others; it should be whether it is possible.⁴⁹¹ The risk of heuristic bias is so unavoidable under current law that any analysis of pleading sufficiency that turns on comparing inferences must be abandoned.⁴⁹² We cannot know, for example, whether experiences and heuristics contributed to the different inferences of the white Alabama trial judge and black Florida appellate judge in *Lewis v. Bentley*, but a rule structured so that they were not called upon to compare the plausibility of racial discrimination and state-level control would decrease this concern.⁴⁹³

Since Rule 8(a) itself does not mandate comparisons as part of the *Iqbal*-mandated plausibility analysis, this change in analytical method could be made without a rule amendment.⁴⁹⁴ Judicial practices, though, would need to change; judges should not dismiss cases because they believe an inference contrary to the plaintiff's is more probable.⁴⁹⁵

As to types of cases in which slanted heuristics are particularly likely, a solution would need to come from outside the Federal Rules of Civil Procedure. The trans-substantive nature of the rules precludes changes that single out specific substantive areas for different treatment. Outside of the rules, though, changes in substantive law that establish certain presumptions might help highlight issues in which inferences are particularly likely to be

491. See *id.* at 12 (pointing out that judges may come to different conclusions on the same record based on the evidence they consider and the inferences they draw from said evidence).

492. See *id.* at 4 (noting the great risk of bias).

493. Compare *Lewis v. Bentley*, No. 2:16-CV-690-RDP, 2017 WL 432464, at *11 (S.D. Ala. Jan. 31, 2017) (finding that the plaintiffs' "conclusory allegation" that the Minimum Wage Act was racially discriminatory "fails to nudge their . . . equal protection claims across the line from conceivable to plausible"), with *Lewis v. Governor of Ala.*, 896 F.3d 1282, 1294–97 (11th Cir. 2018) (finding that the plaintiffs stated a claim sufficient to infer that the Minimum Wage Act had both the purpose and effect of "depriving Birmingham's black citizens equal economic opportunities on the basis of race" in violation of the Equal Protection Clause).

494. See FED. R. CIV. P. 8(a) (stating pleading rules for a "claim for relief").

495. See Thornburg, *supra* note 480, at 59 (asserting that the standard promulgated in *Iqbal* defines "plausible" as excluding "mere possibility" whereas in practice the Court has only found plausibility when it finds another inference is not more likely).

unreliable because of the limits of generalizations or social stereotypes.⁴⁹⁶

2. *Summary Judgment: Consider Only Inferences in Favor of Nonmovant*

The analysis in summary judgment cases works similarly to a motion to dismiss, but no change in the law would be necessary. Proper application of existing legal standards does not allow the judge to choose among reasonable inferences.⁴⁹⁷ Rule 56 instructs judges to grant summary judgment only if there is no “genuine dispute as to any material fact” and the “movant is entitled to judgment as a matter of law.”⁴⁹⁸ The temptation to compare inferences comes from adjectives that modify the word “inference.” In both summary judgment and directed verdict contexts, judges are told to let the case continue if the nonmovant’s inference is reasonable.⁴⁹⁹

Credibility determinations, the weighing of the evidence, and the drawing of *legitimate* inferences from the facts are jury functions, not those of a judge, whether he is ruling on a motion for summary judgment or for a directed verdict. The evidence of the nonmovant is to be believed, and all *justifiable* inferences are to be drawn in his favor.⁵⁰⁰

The problem with these descriptions lies not in the requirement of reasonableness, but in some courts’ practices of 1) considering even impeached evidence in favor of the movant; 2) considering inferences in favor of the movant; and 3) judging

496. See, e.g., Joseph A. Seiner, *The Discrimination Presumption*, 94 NOTRE DAME L. REV. 1115, 1119 (2019) (arguing in favor of a presumption of employment discrimination that would satisfy *Iqbal*’s plausibility requirement).

497. See Clermont, *supra* note 5, at 4 (stating judgment as a matter of law focuses on “reasonable possibility” as opposed to a comparison of “infinite alternatives”).

498. FED. R. CIV. P. 56(a).

499. See *Wilkerson v. McCarthy*, 336 U.S. 53, 57 (1949) (addressing directed verdict); *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000) (addressing judgment as a matter of law).

500. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986) (emphasis added).

reasonableness comparatively, so that an inference only counts as reasonable if, in the judge's view, it is superior to others. Jurors, the ultimate fact finders, are the ones entrusted to compare beliefs in different possibilities.⁵⁰¹ That is not the job of a judge ruling on a motion that will end the case before it goes to the jury.

Greater emphasis on what may and may not be considered would help clarify the mental process that a judge ruling on a summary judgment motion should use. The judge needs to be acutely aware that she should consider all evidence in favor of the nonmovant and only evidence in favor of the movant that has not been contradicted or impeached.⁵⁰² (If evidence has been contradicted or impeached, the judge would be making a credibility decision, and that is not proper in the summary judgment context.)⁵⁰³ Note also that, in the case of movants' evidence, this is limited to testimony from "disinterested witnesses."⁵⁰⁴

In addition to the limits on what evidence to consider, proper application of Rule 56 requires that the judge consider only the inference in support of the nonmovant without comparing it to alternatives.⁵⁰⁵ If that inference is reasonable, considered in isolation, then the case should continue to jury trial.⁵⁰⁶ Unfortunately, some cases have considered pro-movant inferences in deciding that the nonmovant's inference could not be found by a reasonable jury. For example, in the *Chadwick* case discussed in Part IV, the trial judge granted summary judgment because he rejected as a matter of law an inference that denying the plaintiff a promotion was motivated by her status as a woman with young children; to him, the inference that the same decision would have been made about a man with young children had not been sufficiently ruled out.

501. See Clermont, *supra* note 5, at 22 (noting the role of jurors).

502. *Wilkerson*, 336 U.S. at 57 (1949) (directed verdict); *Reeves*, 530 U.S. at 151 (2000). Although *Reeves* is about post-trial motions, the opinion notes that the standard to be applied should be the same for summary judgment. *Id.* at 150.

503. See *Reeves*, 530 U.S. at 151 ("Credibility determinations, the weighing of the evidence, and the drawing of legitimate inferences from the facts are jury functions, not those of a judge.").

504. *Id.*

505. *Id.* at 150–51.

506. *Id.* at 151.

Other cases, especially those involving state of mind, reflect the same kind of failure to analyze the record in light of the limitations on summary judgment. One such case is *Jennings v. University of North Carolina*,⁵⁰⁷ in which the trial judge, original majority opinion, and dissenting opinion on en banc review considered (and preferred) inferences in favor of the movant.⁵⁰⁸ The plaintiff had been a member of the University of North Carolina (UNC) women's soccer team, and she alleged that the coach "persistently and openly pried into and discussed the sex lives of his players and made sexually charged comments, thereby creating a hostile environment in the women's soccer program."⁵⁰⁹ The Fourth Circuit's en banc opinion concluded that the plaintiff had produced sufficient summary judgment evidence to merit consideration by a jury.⁵¹⁰

The judges who would have granted UNC's motion for summary judgment considered contradicted and impeached evidence in favor of the movant, and they also relied on inferences in favor of the movant in finding the plaintiff's requested inferences unreasonable as a matter of law.⁵¹¹ For example, they would have inferred that the coach's frequent comments were lighthearted jokes,⁵¹² that the question "who are you fucking" showed concern that the plaintiff's social life might be hurting her academic performance,⁵¹³ and that the plaintiff's distress at being cut from the soccer team showed that the impact of the coach's

507. 340 F. Supp. 2d 666 (M.D.N.C. 2004), *aff'd*, 444 F.3d 255 (4th Cir. 2006), *as amended on reh'g* (June 8, 2006), and *aff'd in part, vacated in part sub nom. Jennings v. Univ. of N. C.*, 482 F.3d 686 (4th Cir. 2007) (en banc).

508. *See Jennings*, 482 F.3d at 691 ("Because Jennings was the non-movant in the summary judgment proceedings, we recite the facts, with reasonable inferences drawn, in her favor.").

509. *Id.*

510. *See id.* at 701 (finding "Jennings ha[d] presented sufficient evidence to raise triable questions of fact on all disputed elements of her Title IX claim against UNC").

511. *See id.* at 724–25 (Niemeyer, J., dissenting) (observing that the coach's long tenure as the head of the women's team "makes any inference that Dorrance is generally hostile to young women soccer players . . . preposterous").

512. *See id.* at 719 (describing the coach's behavior as "simple teasing").

513. *See id.* at 720 ("[I]t was, in context, obviously an inquiry about what was occupying Jennings' time.").

behavior on her was not severe.⁵¹⁴ Those pro-movant inferences were quite likely influenced by the judges' understanding of the nature of athletics and player-coach relationships.⁵¹⁵

The Supreme Court itself was guilty of considering pro-movant inferences in its notorious opinion in *Scott v. Harris*.⁵¹⁶ One fact issue required a decision about whether a fleeing driver was endangering the lives of others.⁵¹⁷ The summary judgment record in that case included deposition testimony as well as a videotape of a police chase.⁵¹⁸ The decision turned not on facts depicted on the video (e.g. "was it dark outside?") but on the inferences that could or could not be drawn from its depiction of the chase.⁵¹⁹ The trial court and Eleventh Circuit opinions concluded that a reasonable jury could infer facts and reach conclusions in favor of the driver: he posed no threat prior to the chase, and during the chase he posed little or no threat to pedestrians or other motorists (the roads were largely empty and he remained in control of his vehicle).⁵²⁰ In contrast, Justice Scalia's majority opinion for the Supreme Court rejected any such inferences as unreasonable as a matter of law, instead drawing the inference in favor of the police officer who rammed the fleeing driver's vehicle.⁵²¹ "Far from being the cautious and controlled

514. See *id.* at 723, 725 (claiming Jennings pursued the lawsuit out of "anger and disappointment in being cut").

515. See *id.* at 724

If Dorrance was then the coach of the men's soccer team, he would just as surely have teased his male players about their weekends with their girlfriends as he lightly teased Jennings about her weekend with her boyfriend. Such teasing about a player's social life is the norm on any collegiate athletic team, whether male or female.

516. 550 U.S. 372 (2007).

517. See *id.* at 378 (stating the first task in this case was "to determine the relevant facts").

518. *Id.*

519. See *id.* at 379–80 (describing the driver in the video "racing," "swerv[ing]," "run[n]ing multiple red lights," and driving "shockingly fast," and concluding that the driving created "a great risk of serious injury").

520. See *id.* at 378–79 ("Indeed, reading the lower court's opinion, one gets the impression that respondent, rather than fleeing from police, was attempting to pass his driving test."); see also *Harris v. Coweta Cty.*, 433 F.3d 807, 815–16 (11th Cir. 2005), *rev'd*, 550 U.S. 372 (2007) (lower court record).

521. See *id.* at 379–80 (asserting that the nonmoving party's deposition was "blatantly contradicted by the record" and that "no reasonable jury could have

driver the lower court depicts, what we see on the video more closely resembles a Hollywood-style car chase of the most frightening sort, placing police officers and innocent bystanders alike at great risk of serious injury.”⁵²² Given his interpretation of the events depicted on the video, Justice Scalia chose the inference suggested by the movant police officer—the fleeing driver was endangering officers and members of the public—and therefore the nonmovant’s contrary inference was not reasonable.⁵²³ One can hope that this type of analysis is limited to cases involving videotape, as it does not purport to change the general rules of summary judgment analysis.

Improved awareness of proper summary judgment analysis could help avoid judges’ reliance on their own personal inferences to take cases away from juries. We would not need to wonder about the impact of differences in the experience of working mothers and working fathers (and societal attitudes toward both) on the trial and appellate judges in *Chadwick*.⁵²⁴ We would not have to worry that different experiences with team sports, coaches, and “locker room talk” would lead to different inference preferences where the judge’s choice controls.⁵²⁵ Similarly, a plaintiff’s access to a jury trial would not be heavily influenced by whether a judge grew up driving on two-lane roads.⁵²⁶

Important policies underlie Rule 56’s requirement that judges look at the evidence and inferences in the light most favorable to

believed him”).

522. *Id.* at 380.

523. *See id.* at 396 (Stevens, J., dissenting) (arguing that the majority opinion “presumes its own version of the facts”). Justice Stevens’ dissent calls the majority on its improper summary judgment analysis, and also suggests that the Justices’ experience may have influenced their inferences. *See id.* at 390 n.1

I can only conclude that my colleagues were unduly frightened by two or three images on the tape that looked like bursts of lightning or explosions, but were in fact merely the headlights of vehicles zooming by in the opposite lane. Had they learned to drive when most high-speed driving took place on two-lane roads rather than on superhighways—when split-second judgments about the risk of passing a slowpoke in the face of oncoming traffic were routine—they might well have reacted to the videotape more dispassionately.

524. *See supra* Part IV.A.2 (discussing *Chadwick*).

525. *See supra* notes 507–515 and accompanying text.

526. *See supra* notes 516–523 and accompanying text.

the nonmovant.⁵²⁷ The result of a denial of summary judgment is a case that proceeds to a jury determination.⁵²⁸ In addition to its Seventh Amendment significance, decisions by a multi-member jury may be better able to overcome the heuristics and biases discussed in this Article. Its broader array of experiences and “common sense” make this possible.⁵²⁹ “[T]he controlled process of trial and the forced deliberation of lay jurors could provide a powerful antidote to not only overt biases and prejudices but also to the more subtle warping of perception and rational thought that stems from cognitive illiberalism and its cousins.”⁵³⁰

When restricting analysis to the proper parts of the record and to inferences in favor of the nonmovant, a judge’s role with respect to inferences is still very important, but its function is more narrowly defined.⁵³¹ It also has the advantage of keeping the focus outside of the judge’s own personal probability assessment, reminding the judge that other people with different experiences can draw different but reasonable inferences.⁵³² This approach might in some cases lead to increased costs to the litigants and the court because the litigation will continue, and the cost is more worrisome when the movant ultimately prevails.⁵³³ However, these costs must be balanced against potential advantages of avoiding the dismissal of meritorious claims, the costs of successful appeals,

527. See Stempel, *supra* note 68, at 631 (“The very premise of summary judgment is that there are *no* genuine disputes of material fact, and that *no* reasonable jury could find for the nonmovant, and the law is so clear that there is *no* valid reason to postpone entry of judgment.”).

528. See, e.g., *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000).

529. See Stempel, *supra* note 68, at 684 (asserting that judge-driven rejections of claims may have Seventh Amendment violation implications).

530. *Id.* at 680. See generally Kahan et al., *supra* note 3.

531. See *Wilkerson v. McCarthy*, 336 U.S. 53, 57 (1949) (restating the rule that judges may only look at the inferences in favor of the nonmovant when deciding whether to submit an issue to the jury).

532. See Stempel, *supra* note 68, at 634 (asserting that judges are not good at imagining conclusions drawn by a person with a different background); see generally Kahan et al., *supra* note 3.

533. But see Edward Brunet, *The Efficiency of Summary Judgment*, 43 LOY. U. CHI. L.J. 689, 689 (2012) (theorizing that denial of a motion for summary judgment both saves court costs and creates a “settlement premium” for the nonmovant).

the importance of access to the courts, and the constitutional role of the jury as fact finder.⁵³⁴

3. *Develop a Record that Supports a Richer Narrative*

a. Pleadings

Since the end of the twentieth century, the trend in civil procedure has been to worry about costs and efficiency at the expense of other values.⁵³⁵ As part of this trend, rule amendments and changes to interpretation of existing rules have restricted available procedures.⁵³⁶ Among other things, dismissals on the pleading and the granting of summary judgment have been made easier and the scope of discovery has been limited.⁵³⁷ All of these forces have resulted in decisions based on a sparser factual record—what one scholar has called “narrative-erasing procedure.”⁵³⁸ The function of the civil justice system depends on competing narratives, and narrative richness helps decision makers choose from a fuller array of possibilities.⁵³⁹

Because as a group judges are highly educated and very often members of a political or social elite, they may not share the

534. See Stempel, *supra* note 68, at 632 (“More likely is that the aggressive use of summary judgment costs society more than would a procedural code with no summary judgment mechanism.”); Anne E. Ralph, *Narrative-Erasing Procedure*, 18 NEV. L.J. 573, 607–08 (2018) (noting the ample scholarship on the decline of trial in civil cases and restrictive nature of current civil procedure).

535. See Ralph, *supra* note 534, at 607–08 (arguing that restrictive trends in civil procedure limit access to courts for marginalized populations and impede individual litigants’ rights to be heard in a neutral forum).

536. *Id.*

537. See *id.* at 609 (addressing the heightened pleading standard created by *Twombly* and *Iqbal*); *id.* at 614 (asserting the proportionality addition in the scope of discovery rule is too burdensome).

538. See generally *id.* “Narrative” in this sense means “a particular representation of a series of events: a text or other embodiment of a certain telling or treatment of a story’s events.” *Id.* at 577. A narrative is not the same thing as a “story.” *Id.* It is, rather, the telling of the events from some particular perspective. *Id.*

539. See *id.* at 589 (pointing to the relationship between competing narratives and law in the trial setting).

same “stock stories” with the litigants from outsider groups who appear before them. But we know narratives can create empathy and persuade in a way that cold logic or impersonal data cannot.⁵⁴⁰

More information can lead to better inferences and more evenhanded results. Plaintiffs who *do* have access to a richer set of facts, then, should realize their narrative potential and plead the underlying story.⁵⁴¹ Providing a more complete and full-bodied set of narratives can help judges combat automatic heuristic responses.⁵⁴² For example, judges considering plausibility of pleadings may, if not given more information, rely on their own narratives—those that their heuristics generate.⁵⁴³ “Given the privileged position of judges, who tend to be well educated and politically elite, [they may] unconsciously apply a master-narrative that differs radically from the narratives that . . . members of marginalized groups may wish to tell.”⁵⁴⁴ In order to increase the probability that the judge will be able to make decisions on a more information-rich record, procedure rules should be made and interpreted to discourage dismissal on the pleadings without an opportunity to do discovery.

Inferences are gap-fillers, and a record containing a more complete collection of circumstantial evidence can better inform the inference-drawing process. “The more gap filling and inferential thinking that a judge has to engage in, the more room there may be for explicit and implicit biases to structure the judge’s assessment in the absence of a well-developed evidentiary record.”⁵⁴⁵ Some of the additional information can provide the

540. *Id.* at 619.

541. See Herbert A. Eastman, *Speaking Truth to Power: The Language of Civil Rights Litigators*, 104 YALE L.J. 763, 811–14 (1995) (urging the use of narratives in pleadings as a means to persuade); see generally Elizabeth Fajans & Mary R. Falk, *Untold Stories: Restoring Narrative to Pleading Practice*, 15 J. LEGAL WRITING INST. 3 (2009) (instructing practitioners to go beyond the “bare-bones form-book” pleading and incorporate storytelling techniques when drafting complaints to provide a meaningful translation of the plaintiff’s experience and “evok[e] in the reader a desire that justice be done”).

542. See Eastman, *supra* note 541, at 812 (suggesting that narrative is a tool to counteract presuppositions and increase understanding of clients’ realities).

543. See *id.* at 813–14 (explaining the role that heuristics play).

544. Ralph, *supra* note 535, at 612.

545. *Id.*

judge with facts that fall outside his or her experience, and it may even alert the judge to perspectives other than his or her own. The larger set of information inputs can also cue System 2 effortful thinking, increasing the chances that an inference will be deliberate rather than automatic.⁵⁴⁶

b. Discovery

Discovery decisions are the other significant procedural context that could improve inferences by providing a factually more complete record.⁵⁴⁷ Inferences come into the discovery picture because much of the information sought may be circumstantial rather than direct evidence.⁵⁴⁸ A party seeking discovery may be asking the court to order production of material that arguably supports an inference. For example, in a sex discrimination case involving John Doe's intent, the discovery sought might be not "I heard John Doe say that he fired the plaintiff because she was female" but "John Doe regularly tells sexist jokes to male employees." As was true in the cases described in Parts III and IV, the discovery relevance decision turns on whether the judge believes an inference from circumstantial evidence to the fact of consequence to the action is sufficiently significant to satisfy Rule 26(b).⁵⁴⁹

In order to encourage discovery that will provide the court and the parties with a more complete narrative, judges drawing inferences can keep in mind the way the procedure and evidence

546. See *Blinking*, *supra* note 37, at 15 (postulating that judges did better on a more difficult CRT problem because more difficult problems suggest "to the test taker that reliance on intuition might be unwise").

547. Just as narratives can be created at the pleading stage, broader discovery can also provide parties with the information needed to present narratives in motions throughout the litigation cycle. See Eastman, *supra* note 541, at 811–14.

548. See ANDERSON ET AL., *supra* note 18, at 76–77 (pointing out that despite the technical difference between direct and circumstantial evidence, no evidence is truly "direct" because "every argument can be further decomposed to reveal new sources of doubt or uncertainty").

549. For a discussion of how a judge's determination of the importance of an inference to a party's claims can affect discovery rulings, see *supra* Part III.C. For real-life cases illustrating this dynamic, see *supra* Part IV.B.

rules talk about relevance.⁵⁵⁰ “Evidence is relevant if: (a) it has any tendency to make a fact more or less probable than it would be without the evidence; and (b) the fact is of consequence in determining the action.”⁵⁵¹ The language of the evidence rule makes it clear that the test should not require the discovering party to convince the judge that the requested information is sufficient to support an inference that is more probable than not.⁵⁵² Rather, the information to be discovered is relevant if it makes the inference more probable than it would be without the information.⁵⁵³ The rule as written, then, encourages the judge to allow discovery of a broader set of information, and that information in turn can better inform the inference to be made on the merits.⁵⁵⁴

Judges considering discovery requests should be aware that fact investigation, particularly when it is done by those with little initial information, may take the form of abductive reasoning.⁵⁵⁵ “Abductive reasoning” can be defined as “[a] creative process of using known data to generate hypotheses to be tested by further investigation.”⁵⁵⁶ From the information available at a particular point in time, the discovering party may generate a hypothesis.⁵⁵⁷ If that hypothesis is correct, then the information sought should exist, and the discovery request is aimed at finding it.⁵⁵⁸ Rather than rejecting such requests out of hand as speculative or

550. See, e.g., FED. R. CIV. P. 26(b)(1) (“[P]arties may obtain discovery regarding *any* nonprivileged matter that is relevant to any party’s claim or defense and proportional to the needs of the case, considering the importance of the issues at stake in the action . . . [and] the importance of the discovery in resolving the issues . . .”) (emphasis added).

551. FED. R. EVID. 401.

552. *Id.* 401(a).

553. *Id.*

554. See FED. R. EVID. 401 advisory committee’s note (recognizing that even evidence “essentially background in nature . . . is universally offered and admitted as an aid to understanding”).

555. See ANDERSON ET AL., *supra* note 18, at 54–58 (noting that the acquisition of additional evidence during fact investigation—especially in the early stages—often requires parties to use abduction to build off the information available to them).

556. *Id.* at 379.

557. See *id.* at 56 (“[Abduction] involves reasoning from the evidence to a hypothesis that might explain it.”).

558. *Id.* at 57.

irrelevant, judges should entertain the possibility that inferential links between the information at hand, the hypothesis, and the information sought may be convincing.

The proportionality factors emphasized by the 2015 amendments to the discovery rules can also be problematic with respect to the impact of judges' own experiences and biases.⁵⁵⁹ It is unlikely that they will be removed from the rules, but their application can be done with care, and with attention to the possible impact of non-universal generalizations. When the rule was adopted, the Advisory Committee left the question of burdens of proof somewhat ambiguous.⁵⁶⁰ The Advisory Committee note, though, provides both that "the [rule] change does not place on the party seeking discovery the burden of addressing all proportionality considerations" and that a "party claiming undue burden or expense ordinarily has far better information—perhaps the only information—with respect to that part of the determination."⁵⁶¹ Judges considering proportionality issues can avoid reliance on generalizations growing out of their own pre-bench practice experience by requiring parties to produce evidence to support the inferences relating to factors that are objective and measurable.⁵⁶² Similarly, judges should be acutely aware of the possibility of generalizations that differ from those that they access most readily.⁵⁶³ Finally, for those proportionality factors that are inherently normative, judges should consciously summon and consider competing policy values.⁵⁶⁴

559. See, e.g., Jonah B. Gelbach & Bruce H. Kobayashi, *The Law and Economics of Proportionality in Discovery*, 50 GA. L. REV. 1093, 1109–18 (2016) (discussing the six Rule 26(b) proportionality factors and the way a judge's subjective judgments enter the analysis).

560. See, e.g., AGENDA BOOK OF THE ADVISORY COMMITTEE ON CIVIL RULES 206 (Apr. 10–11, 2014), <https://perma.cc/U76Q-UW37> (PDF) (noting that Rule 26 still "does not specify which party bears the burden of proof").

561. FED. R. CIV. P. 26(b)(1) advisory committee's note to 2015 amendment.

562. See Gelbach & Kobayashi, *supra* note 559, at 1111–18 (clarifying the extent to which each of the six proportionality factors is objective and measurable, and listing specific questions that judges can ask to evaluate each).

563. See *supra* Parts V.C–D (discussing the ways in which judges draw from their professional experiences and implicit biases to create often improper mental shortcuts).

564. See Gelbach & Kobayashi, *supra* note 559, at 1116–18 (suggesting that judges balance the proportionality factors against employment practices, free

Rule 26(b)(1) should be interpreted and applied with a policy slant in favor of production, and this may in some cases increase costs for the producing party. It is nevertheless an important analytical starting point. Any increased out-of-pocket costs need to be considered in light of the benefits of further discovery that greater accuracy in decision making could bring to private litigation's function as an enforcer of legal norms.⁵⁶⁵

VII. Conclusion

When it comes to inferences, judges—like people everywhere—should approach the task with great humility.⁵⁶⁶ Despite best intentions, non-conscious mental shortcuts are working away, providing the human mind with information and intuitions that are skewed by each person's individual experiences. Our very senses can deceive us, influenced by our social and cultural commitments and helped along even by more deliberative thought. While the cases discussed in this Article, and many of the studies of judicial behavior, have focused on difficult and important issues such as race, gender, and politics, there is no reason to think that cognitive shortcuts do not affect all types of decisions in all types of cases.

speech, and other matters that “may have importance far beyond the monetary amount involved”).

565. See SEAN FARHANG, *THE LITIGATION STATE: PUBLIC REGULATION AND PRIVATE LAWSUITS IN THE U.S.* 6–10 (2010) (characterizing private lawsuits to enforce legislation as essential to legal infrastructure in the United States); Arthur R. Miller, *From Conley to Twombly to Iqbal: A Double Play on the Federal Rules of Civil Procedure*, 60 DUKE L.J. 1, 71–72 (2010) (discussing the importance of private parties' assisting government agencies in the enforcement of substantive law); Richard B. Stewart & Cass R. Sunstein, *Public Programs and Private Rights*, 95 HARV. L. REV. 1193, 1289–94 (1982) (discussing the necessity of private rights of action for the enforcement of substantive law).

566. By using this term, this Article does not mean to pull in the full body of academic research and theorizing regarding intellectual humility. It is noteworthy, however, that this work is consistent with much of the scholarship cited regarding cognitive and social psychology and with theories of cultural cognition. See generally MARK R. LEARY, JOHN TEMPLETON FOUND., *THE PSYCHOLOGY OF INTELLECTUAL HUMILITY* (2018), <https://perma.cc/V7FU-QPP9> (PDF). Leary defines intellectual humility as “recognizing that a particular personal belief may be fallible, accompanied by an appropriate attentiveness to limitations in the evidentiary basis of that belief and to one's own limitations in obtaining and evaluating relevant information.” *Id.* at 1–2.

Yet fact finding, including the drawing of inferences, is an integral part of the judicial system. It is not confined to juries, or even trials, but is instead a pervasive part of the pretrial period. These important decisions set the parameters for litigation success and failure. The more we learn from psychologists about the operation of our minds, the less tenable it becomes to stick with the fiction that inferences are purely a matter of neutral logic. The real nature of inference-drawing needs to be confronted.

The Federal Judicial Center is to be commended for the education efforts it has already undertaken, and for including social cognition as a judicial competency. Yet its programs require systemic partners. Knowledge of the issue and tools that encourage reflection must be coupled with efforts to motivate judges to avoid relying too heavily on their individual experiences and with the creation of structures that require effortful deliberation. Finally, changes in the way the procedural rules are interpreted and applied could improve the quality of judicial inferences, preserve the power of juries to choose among reasonable inferences, and enhance the depth of the factual record on which those juries will make their decisions. There is no magic bullet to avoid the challenge of humans using human cognition, but we can avoid exalting the “experience and common sense”⁵⁶⁷ of individual judges.

567. *Ashcroft v. Iqbal*, 556 U.S. 662, 679 (2009).